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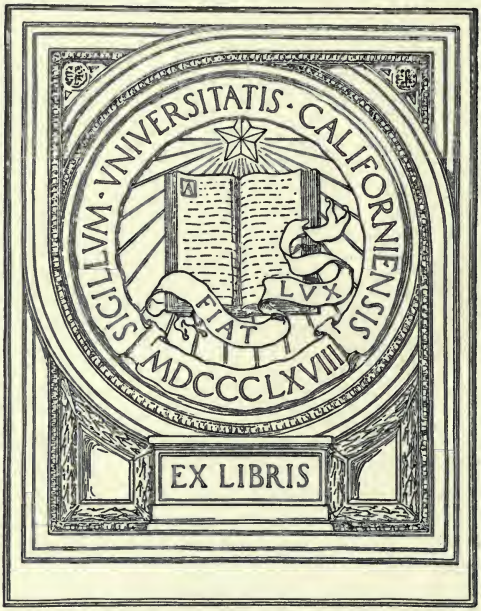

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TRANSPORTATION RATES AND THEIR REGULATION

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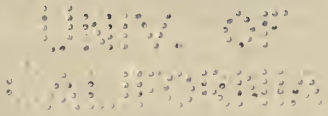
TRANSPORTATION RATES AND THEIR REGULATION

A STUDY OF THE TRANSPORTATION COSTS OF COMMERCE WITH ESPECIAL REFERENCE TO AMERICAN RAILROADS



BY

HARRY GUNNISON BROWN

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New York

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PREFACE

In writing this book, I have aimed to present a complete theory of transportation rates and their regulation, to illustrate this theory with a sufficient number of concrete cases arising in actual regulation to make the reader or student feel that the presentation is thoroughly practical, and, throughout, to keep before the reader a realization of the relation of rate making to trade, testing each rate structure or regulation by its probable effect in securing or failing to secure the maximum of really profitable commerce and the largest economic well-being of the community. Whether a given level of rates is so high that, like tariff restrictions, it will prevent commerce which ought to take place, or whether it is so low (less than cost) that, like most bounties, it will encourage commerce that ought not to take place, or whether rates are discriminatory in such a way as to affect commerce injuriously, are the questions kept constantly in view. As a protective tariff may prevent profitable trade, so may monopolistic transportation rates. As the protective policy may, perhaps, benefit persons in one section of a country at the expense of those in another section, so discriminating transportation rates may arbitrarily build up one city and ruin another. As tariff protection may divert a country's industry out of its most profitable channels, so may discriminating railroad rates arbitrarily encourage one industry in a given territory or section and discourage another. As tariff barriers may further the development of private monopoly, so may discrimination in

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rates among competing shippers. Arguments are presented tending to show the uneconomy of the "basing-point" system and of discrimination favoring intrastate as against interstate traffic. Yet, on the other hand, certain apparent discriminations among places, among different kinds of goods, and between different directions, are seen, upon analysis, to be not quite analogous to protective tariffs and bounties but to be economically defensible.

That the inner philosophy of rate regulation and of the general disapproval of various rate practices once common, should be understood, some such presentation of the principles of rate making and of rate regulation as is here offered, would seem to be essential. It ought to be given at least as much importance and to be emphasized in college classes at least as much, as the mere record of past legislation and description of existing law. Indeed, if, as we are so often told, the principal function of our colleges is to prepare the younger generation for citizenship, then the things they need to learn there, perhaps most of all, are the reasons of public policy which sometimes do, and which always should, lie back of and condition our legislation.

A number of chapters of this book will appear also as Part III of my *Principles of Commerce*, shortly to issue from the press. A few footnote references to "Part I" and "Part II" are to that other work. The present book is confined to the discussion of transportation problems and is, as to these, more complete than the other.

I am under obligation to *The American Economic Review* for permission to republish, as Chapter II, in practically its original form, an article on *The Competition of Transportation Companies*, first published in

December, 1914. To Professors Irving Fisher and Clive Day of Yale College and to the late Professor G. S. Callender of the Sheffield Scientific School, Yale University, I owe critical reading of selected chapters. To Professor John Bauer of Cornell University I am under obligation for a careful and valuable criticism of practically the entire book. To my wife I am under obligation for aid in gathering data, for criticism throughout, and for reading the proof.

HARRY GUNNISON BROWN.

COLUMBIA, MO.,
February, 1916.

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TRANSPORTATION RATES AND THEIR REGULATION

TRANSPORTATION RATES AND THEIR REGULATION

CHAPTER I

The Cost of Transportation

§ 1

Preliminary Remarks on the Expenses of Railroads

Before taking up a consideration of transportation rates, or of economical versus uneconomical carriage of goods,[1] we may, with advantage, analyze transportation costs. We shall begin by classifying and discussing the expenses of railroad companies.[2] Scarcely any of the expenses which a railroad company has to meet can be said to vary in exact proportion with the traffic. Even the cost of fuel and the wages of engineers and trainmen do not vary in exact proportion with amount of goods carried, or in exact proportion with the number of cars or the number of trains hauled. But it is probably not widely false to state that such expenses as these will vary, in any given period, about as the number of trains

[1] Except as such carriage of goods has already been considered in Part II, Chapter VIII.

[2] The writer has found particularly helpful, though he has not followed it throughout, the analysis of ton mile cost in Woodlock's *Anatomy of a Railroad Report* and *Ton Mile Cost*, New York (S. A. Nelson), 1900, Chapters I to V, inclusive, of *Ton Mile Cost*. See pp. 86 and 87 of Woodlock for summary of classification.

times the average number of miles a train is taken during that period. If we bear in mind that, within the limits permitted by reasonable frequency of trains, the number of cars to a train will be, on the whole, the best paying (*i.e.* the length of train will be the best paying), then we may say that these expenses (for fuel, wages of engineers, etc.) vary, in a considerable degree, as traffic varies. Other railroad expenses, however, seem to have much less relation and, in some cases, almost no relation to the quantity of transportation business done.

By a parallel argument it may be shown that no appreciable amount of a railroad's expenses can be exactly allocated to (regarded as particularly caused by) any special traffic. For example, suppose coal and live stock to be carried in the same train load. Much of the expense of carrying is a joint expense, *e.g.* the cost of fuel and the wages of engineer and fireman. If the coal and the live stock are carried in the same train, it will appear difficult, if not impossible, to determine how much of the cost of running the train is a cost of carrying coal, and how much is a cost of carrying live stock. Yet when train loads are homogeneous, made up, each, entirely of one kind of goods, some expenses may be allocated, such as fuel cost, engineer's wages, etc. It can be determined, approximately, what is the cost per train load of hauling coal, and what is the train load cost of hauling live stock. From this we may deduce the cost per ton mile of hauling each. But there are other and more general railroad expenses which cannot thus easily be allocated, or attributed to different kinds of traffic, any more than they can be said to vary in proportion to traffic. What is needed

is a careful analysis of the expenses of a railroad, with a view to determining the relation which these expenses have to amount and kinds of traffic, and the influence which they have and ought to have on rates.

§ 2

Classification of the Expenses of Rail Transportation

In attempting such an analysis, we may divide the expenses of a railroad into four classes, in rough proportion to the relative exactness with which these expenses vary as traffic varies, and in proportion, also, as they are easily and clearly attributable to different kinds or to different lots of traffic. The first class of expenses of a railroad company includes all expenditures for the production of train mileage, train mileage being defined as the total number of trains run during a given period, times the average number of miles a train is run. The expenses in this first class will be found to be the most variable and apportionable of any. Second, there are terminal expenses, which are variable in proportion to volume of traffic and are in some degree apportionable, but which have no relation to the distance goods are carried. Third, there are the general expenses, or preparatory and complementary expenses, which are slightly variable within wide limits, but which are not likely to vary much, if at all, with small changes in the volume of business, and which cannot, to any considerable extent, be allocated, or attributed to any special traffic. The fourth class is made up of the so-called fixed charges (or the sunk costs), which, once the road has been built, are not at all variable as traffic changes, or at all attributable to different parts of the total

business done.[1] Let us consider these four classes of railroad expenses in the above order.

Expenses for the production of train mileage include some half dozen different subclasses of expense. First, there is the cost of production of locomotive power. This cost includes wages of engineers and firemen, value of coal burned, of oil and tallow used, etc. Second, there are expenses for maintenance of equipment, such as repairs of engines and cars. The third item among expenses for production of train mileage is a part of the cost incident to maintenance of way. Renewals of rails and renewals of switches and of rail fastenings, so far as they are due to wear and hence depend upon the number of train miles, are maintenance of way expenses which must be classed as being for the production of train mileage. The same thing is to be said, in part, of expenses for tie renewals. In part, these renewals are necessitated by weather conditions and are not related to the use made of the tracks, but in part they depend upon this use. This third item includes also such repairs of roadbed as are not due to weather and floods, and includes, further, a certain amount of bridge repairs. Fourth, the expenses for the production of train mileage include the cost of train service and supplies. This means particularly the wages of trainmen, oiling, and, in the case of passenger trains, heating and lighting. Fifth, there is the cost of superintendence and supervision in the movement of trains, a cost which depends in large part upon the number of trains to be run and the average distance they are to be run. Other expenses might perhaps be mentioned, which pertain particularly

[1] See, however, later paragraphs of this section (2), in which the possible requirement of additional construction is discussed.

to the production of train mileage, but those here given are fairly inclusive, and will at least serve for illustration.

The expenses above given incident to the production of train mileage are the operating expenses which vary in some approximate proportion with the trains moved times the average number of miles, *i.e.* with train mileage. They do not, however, vary in *exact* proportion to the number of trains times the average number of miles that trains are run, since trains are not all of the same length or loaded with equally heavy cargoes. The cost of running long and heavily loaded trains is greater for the same distance than the cost of running less heavily loaded and shorter trains. Yet it is not greater in proportion to the larger amount of goods carried, until the train load of maximum efficiency has been reached.[1] This train load will be, where circumstances favor, the largest which the most efficient and economical type of engine for the purpose can conveniently draw. The cost in fuel and labor of drawing such a train load, obviously will not be twice as great as the cost of drawing the same train loaded to but half its capacity or of drawing a train of half the length. The expense of production of train mileage does not, therefore, increase as rapidly as business increases, except in the case of a road (or part of a road) whose volume of business is already so great as to permit the train load of maximum economy. Where traffic is not heavy, the frequency of service required for public convenience makes impossible the larger trains and heavier loading which otherwise

[1] The special case of traffic taken to fill cars which must otherwise be returned empty to their starting point is discussed in Chapter V (of Part III), § 7.

would be attempted. The first class of expenses, therefore, that for the production of train mileage, increases as the amount of traffic increases, but does not increase, on the average road, as rapidly as traffic increases.

The second class is terminal expenses. These, too, may properly be regarded as operating expenses. They are the expenses for loading and unloading freight, when this is done by the railroad company transporting it and not by the consignor and consignee. They include, also, expenses of switching, expenses for making up trains, expenses incident to repairing terminals, so far as this repairing is occasioned by the use of these terminals, and, in general, expenses incident to collection and handling of freight and passengers at terminals proper and at intermediate points. The amount of freight and the number of passengers carried affect these expenses, though probably not proportionally, but the distances the freight and passengers are carried do not affect them.

General, or preparatory and complementary, expenses constitute the third great class of costs. These general expenses we may subdivide, in the main, into two subclasses. First, there are a part of the expenses for general direction and supervision, for clerical work, for soliciting traffic, etc., which would not need to be incurred if a railroad company should elect to do no business at all, but which, nevertheless, vary comparatively little even with marked increases and decreases of traffic, and which, with, perhaps, the partial exception of soliciting expenses, can be allocated hardly at all, *i.e.* cannot be said to be especially incurred for this or that part of the traffic. Such expenses are among those sometimes

described as joint costs [1] of all the traffic. Second, there are many expenditures for maintenance of plant, such

[1] As by Taussig in the *Quarterly Journal of Economics*, 1891, Vol. V, pp. 438–465. Pigou, in his *Wealth and Welfare*, London (Macmillan & Co.), 1912, pp. 215–219, criticizes the view that railway transportation is essentially a business of joint costs. See, also, discussion between Professors Taussig and Pigou in the *Quarterly Journal of Economics* for February, May, and August, of 1913. While the method of approaching the theory of rates, in this book, may appear to be essentially that of the joint cost theorists, the conclusions reached have been carefully qualified in the text and in footnotes, and it is hoped that any substantial basis for criticism on that score has been avoided. It must be admitted that the carrying of (say) two commodities, *e.g.* wheat and coal, by railroad, is not a case of joint cost in quite the same sense as the production of, for example, beef and hides. The transportation of the wheat and coal is a case of joint cost (if we wish to use that expression), only in the sense that certain expenses do not vary proportionately whether traffic (within wide limits) is large or small, only, that is, in the sense that the plant which is constructed primarily, perhaps, to carry the wheat, cannot be fully utilized in transporting the wheat and may also be used, without correspondingly greater expense, to carry the coal. But, supposing the size of railroad plant of maximum economy to have been reached, a larger and larger demand for the transportation of wheat would not increase — it would, rather, decrease — the possible supply of the service of transporting coal. So long as the plant was but partially utilized in transporting the wheat, it might be possible to carry the coal at very low rates, because the relatively constant expenses were chiefly covered by the charge made for transporting the wheat. But when the plant came to be more fully utilized, with, perhaps, a possibility of being completely utilized, in transporting the wheat, the transportation of coal would be a *competitive* rather than a *complementary* use of the plant; and even before the capacity of the plant was put to the test by traffic all of which was able to pay its proportionate share towards the general expenses and fixed charges, the increased demand for the transportation of wheat might somewhat raise the rates on the transportation of coal. The production of beef and hides is a typical case of joint cost. An increased demand for beef tends to raise its price and to encourage its production. Such increased production of beef necessarily involves the first stage of, and a partial meeting of the expenses of, an increased production of hides, and so tends to lower the price of hides. (See Fisher, *Elementary Principles of Economics*, New York — Macmillan —, 1912, p. 349.) Somewhat analogously, the transportation of wheat, when this requires the preliminary construction of a railroad plant which cannot be completely utilized by carrying wheat only, may involve the first stage of, and a partial meeting of the expenses of, the transportation of coal, and so may tend to make possible the transportation of coal at very low rates. But a further increase in the transportation of wheat would decrease rather than increase the facilities which might be available for the transportation of coal and would be likely to raise the rates for such transportation.

as renewals of ties, repairs of roadbed, etc., which are not dependent upon the amount of train mileage, which have, perhaps, very little relation to the amount or kind of traffic, but which are necessitated by weather conditions or other extraneous circumstances, and which must be met to a degree, if a railroad company intends to do any business at all.[1] Not only are these expenses of the third class not dependent upon amount of traffic, but they cannot be allocated to different kinds of traffic.

Fixed charges constitute the fourth main class of costs.[2] This class includes interest on a company's

[1] A very great decrease of traffic might, of course, make possible a decrease in the administration expenses and an abandonment of part of the plant, *e.g.* one of several tracks, with resultant saving of maintenance costs. On the other hand, an increase of business sufficient to require additions to the plant, *e.g.* additional trackage, would involve added expense for maintenance and, perhaps, supervision. But, within wide limits, general expenses are largely independent of the volume of business.

[2] The Interstate Commerce Commission has, as one of its duties, to prescribe a system of accounting for all interstate railroads. In carrying out this duty, it has made a classification of expenses considerably different from that above described. (See Statistics of Railways in the United States, 1910, pp. 85, 86.) Operating expense accounts of the railroads are made to include items for:

I. Maintenance of way and structures (such as for upkeep of roadbed and bridges); this was $425,173,389 in the year ending June 30, 1913, for all the railroads of the United States. (For this and for the following figures, see Statistics of Railways in the United States, 1913, pp. 50, 51, and 52.)

II. Maintenance of equipment (upkeep of engines, cars, etc.); this was $513,406,662 in 1913.

III. Traffic expenses (as those for advertising and for soliciting traffic); in 1913 this was $63,082,500.

IV. Transportation expenses (such as wages of engineers, trainmen, and yardmen and cost of fuel), totaling $1,101,742,932 in 1913.

V. General Expenses (including administration, insurance, etc.), amounting for all the roads, in 1913, to $79,363,517.

In addition to these operating expenses, there are such fixed charges as rentals (totaling $133,903,011 in 1913) and interest on funded debt ($380,145,142), besides a few minor deductions from revenue.

This classification, however, though it may be much more practical for many purposes of accounting and supervision than the one which we have followed, is not equally significant in the study of railway rate making. For such operating expenses as those pertaining to maintenance of way and structures and to main-

debt, rentals which it may have obligated itself to pay for the privilege of operating certain branch lines or using certain tracks, and taxes. These expenses are the least variable among all the four classes. In fact, once a sufficient trackage and other facilities have been constructed, most of them do not vary at all with changes of traffic. Whether traffic be large or inconsiderable, profitable or the reverse, interest on the debt must equally be paid when due. Likewise it is obvious that these fixed charges cannot be allocated to any special part of the traffic of a road, cannot be said to be incurred for the sake of any particular traffic.

But it may be objected that a railroad need not have much of fixed charges, that it may have leased no branch lines and may have no debt, that its capital may have been raised entirely by the sale of stock and not at all by the sale of bonds. In that case, the annual fixed charges would have relatively small or no importance. Fixed charges, however, are in large part but interest on the original cost of a railroad system. Interest paid to bondholders is interest on cost; rentals are, in effect, interest on cost (or estimated value) of branch and other leased roads. If, then, there are no fixed charges, there are at least sunk costs. These sunk costs represent the

tenance of equipment, as well as the so-called "traffic expenses," are in considerable degree independent of amount of business. In order to estimate the character of their influence on rates, we may with advantage group a part of each of these classes, for example, those for maintenance of way so far as dependent on weather conditions, with *general expenses*. Other maintenance of way expenses, dependent largely on amount of business, may profitably be grouped with most of the "transportation expenses" under the general title of *expenses for the production of train mileage*. Still other expenses, drawn from one or more of the Interstate Commerce Commission's categories, may, with gain to our study, be classed as *terminal expenses*. Thus we are naturally led back to the division of railroad expenses into those for the production of train mileage, terminal expenses, general expenses, and fixed charges.

amounts already invested in terminals, way, construction, and equipment, including, therefore, both necessary land or space, and the improvements, structures, and equipment, which are the products of labor. So far as the investment in a railroad represents borrowed capital, the annual interest may be regarded as a measure of the investment made, and is entirely independent of traffic. If none of the capital was borrowed and no interest has to be paid, we may say that the original cost of building the road has been sunk once for all and cannot be recovered, however small the traffic, and that it cannot be attributed to any particular part of the traffic. The amount sunk is equivalent to, and would have been exchangeable for, the perpetual annual interest on that amount, and *vice versa*. In either case, this expense, once the investment is made, is independent of traffic.[1]

Let it be said, in this connection, that the fixed charges, or the sunk costs of a great railroad system, are usually sums of great magnitude. A railroad system is a highly capitalistic enterprise even in a capitalistic era. In some kinds of business, yearly running expenses are a large part of the total expenses, and the initial cost is low. But railroading is a business of the opposite type. However large are the yearly expenses of a road, *i.e.* the expenses of *doing*, the expense of *becoming* overshadows these. The predominant fact in a railroad company's history is building the road, and the existence and rela-

[1] If existing facilities are insufficient for the possible traffic, and further construction is necessary, then, it may be said, the cost of such construction, or the annual interest charge on it, is occasioned by the additional traffic sought, and may be attributed to this additional traffic which requires it. Yet here, again, once the additional track laying or other construction has been done, the sunk costs, or the fixed charges on the investment, are the same whether the additional traffic sought proves to be heavy or light.

tive magnitude of this primary cost has large significance in the problem of rate making.

It is commonly stated that the railroad business is subject to a law of decreasing cost, or, as it is sometimes expressed, of increasing returns. Taking the expenses as a whole, they do not increase in proportion to business. But it should be emphasized that the tendency to decreasing proportionate cost with increasing traffic applies, in its full extent, only up to the point where the railroad plant is most economically utilized. Up to that point, increasing traffic will not correspondingly increase expenses.[1] After that point is reached, greater business may require the expense of new construction and of maintenance of a larger plant than before. Until this larger plant is utilized nearly as fully as was the smaller one, total expense per unit of business is likely

[1] This is equally true of the operation of other businesses up to the point of most economical utilization of their fixed plants. If we reckon as fixed charges the interest on the value of a farm and the cost of upkeep, it is true of farming. So long as additional men add more to the value of the product than they are paid in wages, it is worth while to utilize the land more fully, *i.e.* to cultivate it more intensively. Reckoning interest and upkeep expenses as fixed charges, we would find that the larger labor force increased the product by a greater per cent. than the total increase of expense. Nevertheless, the law of *diminishing* returns is said to operate, when the additional men no longer add to the total product, *in proportion to their number*. Analogously, a law of diminishing returns may be said to operate for additional labor (or labor and rolling stock) applied to moving goods over a fixed railway plant, when the additional labor no longer increases the hauling capacity of the railroad in the same proportion. Yet, since the fixed plant need not be increased, the greater business may be worth while. In the sense that efficiency and profits are greater in proportion to *total expense*, we have *increasing* returns; in the sense that efficiency is (possibly) less in proportion to the *quantity of operating labor*, we have *diminishing* returns. (See Carver, *The Distribution of Wealth*, New York — Macmillan —, 1904, pp. 86–89.) The railroad business is much more a business in which a large plant is necessary and in which a larger plant is more economical, than the business of agriculture, or, perhaps, than any other business. And, in the case of railroads, it is often impossible for the size of plant of greatest efficiency to be fully utilized by available traffic. Hence, the matter of utilization of plant has large practical importance in railroad economics.

to be greater than before. Whether the larger plant, when thus fully utilized, will be more economical than the smaller, depends upon whether the size of plant of maximum efficiency has been reached. The question whether there is increasing economy from fuller utilization of an existing plant, is to be distinguished from the question whether a few larger, or more smaller, plants, bring greater results in proportion to the same expenditure. A two-track road can carry more than twice as much traffic as a one-track road, since on the latter much more switching is required and trains cannot follow each other with the same frequency. It is probable that a four-track road can accommodate more than twice the traffic possible on a two-track road, since some of the tracks can be used for fast freight and passenger service and others for slow freight, thus preventing interference of either kind of service with the other. Either fuller utilization of an existing plant or, with still further increase of business, a correspondingly complete utilization of a larger and more efficient plant may, therefore, mean smaller cost per unit of traffic.

3

Influence which these Various Expenses Have and Should Have on the Determination of Railroad Rates

We turn now to a consideration of the influences which the four classes of railroad expenses exert in the making of rates. First, let us consider expenses for the production of train mileage. These vary in a considerable degree according to the business done, though they increase, almost always, in a less proportion than the volume of business. If additional business is taken by

a railroad, it will involve additional expense for the production of train mileage, but usually not proportionally additional expense. If, therefore, rates on new traffic cannot be as high as on traffic already assured, it does not follow that a railroad must refuse this new traffic. But, since the owners of a railroad do not care to do a losing business, any particular traffic which cannot pay for the extra train mileage expense incident to carrying it, will, granting intelligent management, be refused.

It is not desirable from the point of view of social or national economy, that such traffic should be taken. For it to be taken, means that labor and capital is devoted to this task when it could with greater profit be devoted to another, *e.g.* agriculture or manufacturing. Whatever the railroad must pay for this labor and capital is presumably not more than the labor and capital can produce of actual wealth or valuable service, if otherwise used or employed. To say that any traffic will not pay for the additional labor and capital (*e.g.* fuel) required to move it, is to say that the traffic will not pay what the labor and capital can produce in other lines, and this is to say that, if the railroad takes such traffic, industry will be in so far diverted from some more profitable to a less profitable line.

Second, let us consider terminal or station expenses. These vary somewhat as the amount of traffic, but do not vary in proportion to the average distance traffic is carried. Therefore, on the principle that a railway company will not accept freight offered for transportation when to accept it would lessen the railway company's net profits, any traffic which cannot pay as much towards terminal expenses as it adds to these expenses, besides paying for the train mileage costs which it occasions,

will be refused. But these (terminal) expenses will not prevent a railroad from carrying any traffic for long distances, even though this traffic pays only the increased train mileage cost which it occasions, and pays no more towards terminal costs than traffic moving much less distances. The reason is that the longer distance traffic adds no more to total terminal expenses than does traffic for shorter distances. It is a waste of the community's labor and is, therefore, socially undesirable, that traffic should be taken which cannot pay enough to meet the terminal expenses which it occasions.

Third, we have to consider the influence on rates, of general expenses. These expenses do not vary, in any corresponding degree, as traffic varies, but they will cease if a road is content to do no business whatever. As a consequence, a railroad company will take traffic which does not pay its apparent share of the general expenses, rather than not to get this traffic, provided the rate which can be charged covers the cost of train mileage, terminal expenses, and something, however little, towards the general expenses. If any traffic will yield so much, a railroad is better off with it than without it, provided the road's equipment and plant are not too congested to make any greater traffic worth while. Since the general expenses have to be met before anything is left over for profit, it is better to take additional traffic, as long as the plant is not congested, which will aid in paying these expenses, than not to take it, utilize the plant less fully, and get less profit. But it should be emphasized that if the total traffic of a railroad does not pay the necessary general expenses, and if it is not expected to do so in future, business will stop and the

road be abandoned;[1] or such general expenses as repairs may cease temporarily to be met, and the road will be finally abandoned when it can no longer be used without its owners meeting these expenses.[2]

Social economy does not require that each train load of freight should pay just as much towards general expenses as every other train load. The needs of the community may make it desirable that a railroad should connect two given places, *A* and *B*, and hence that the general expenses of maintaining the system should be met, even if only certain kinds of traffic can be secured to carry between these places. Suppose, however, that there is other traffic which the plant can perfectly well accommodate, but which cannot be taken if the charge for its carriage covers much more than the necessary train mileage and terminal expenses incident to this carriage. We may assume that this traffic, if it took place, would be from *A* to *B*, that the goods carried could be produced more cheaply at *A* than at *B* to the extent of a saving of $10.05 worth of labor and material. Assume, also, that the cost of labor and material (fuel, etc.) incident to carrying the goods, *i.e.* the train mileage expenses and terminal expenses, is $10. Then it is desirable that the goods should be carried. There is a saving to the community of 5 cents from carrying them. This is not much, but it is something. Since the general expenses are no greater because of this traffic, the labor and materials required to carry it yield a benefit as great as or slightly greater than the same labor and

[1] Cf. Fisher, *Elementary Principles of Economics*, New York (Macmillan), 1912, p. 328.

[2] Though these expenses may be met, temporarily, for the sake of patronage, etc., if there is hope for better things in the future. Cf. Hadley, *Railroad Transportation*, New York (Putnam), 1885, pp. 70, 71.

materials would produce if otherwise employed. To carry goods which pay very little towards general expenses is not, therefore, necessarily to divert labor from a more productive into a less productive employment; it may be, if the railroad plant is not already fully utilized, the reverse.[1]

But if the total traffic of a railroad cannot pay enough to cover general expenses, then it is economically undesirable that the road should operate and continue to carry goods.[2] For if the total traffic cannot pay the general expenses, as well as train mileage and terminal expenses, then presumably it is not worth, to the community, the equivalent of these expenses. In other words, the transportation service yielded by the railroad is not equal in value to the services or the wealth which the same labor (or labor and materials, *e.g.* coal [3]) could produce if devoted to other industries.

Fourth and last comes a consideration of fixed charges or sunk costs, and of the influence which is or is not exerted by them upon railroad rates. Fixed charges, or at least that part of them which represents interest on a railroad company's debt,[4] must be paid whether

[1] If a portion of the plant, *e.g.* a track, which might otherwise be abandoned, is kept up in order that any special part of the total possible traffic may be taken, in order, for instance, that coal may be carried on a given railroad *as well as* wheat; then the additional expense of upkeep is borne for the sake of that special part of the traffic and ought to be covered by the rates which such traffic pays. But in practice it frequently happens that a given plant, *e.g.* a roadbed and two tracks, is in any case required for a proportion only of the possible business between two given places. This roadbed and these tracks, once constructed, can be more or less completely utilized without corresponding variations of the general expenses, and without the possibility of allocating these expenses to different parts of the business.

[2] Except temporarily, until the need of repairs, etc., becomes imperative.

[3] Involving, of course, labor for its production.

[4] Taxes are generally placed among fixed charges, but are sometimes levied on gross earnings and so vary with business. If rentals are not paid, leased lines

traffic is large or small. Stopping the business and abandoning the road will not relieve the corporation of its interest obligations, so long as it is not bankrupt. It may better run at a loss than not to run and thereby suffer greater loss.[1] Therefore, a road may continue to carry traffic, even although the goods carried do not pay enough to meet all the fixed charges.

Even if, because it cannot pay full interest on its debt, a railroad company becomes bankrupt, its plant is likely still to be operated. The bond holders would probably continue to operate the system after foreclosure had given them control, if it yielded or could be expected to yield much beyond general expenses, even though the per cent. profit should be less than average interest on their original investment. As we have seen, fixed charges are, in large part, interest on a funded debt, *i.e.* interest on that part of the sunk cost which was met by bond holders. Taking the capital as a whole, it has in large part been invested once for all. A great part of the investment cannot be withdrawn for other purposes. It must be used as a railroad or abandoned. So far as this is true of a railroad plant and equipment, the rate for transporting any given traffic will be made without any reference to fixed charges or to sunk costs.[2] The managers of the road will endeavor, in any case, to get for the road all the profit they can get. But they may accept a rate lower than a really paying rate rather than not get traffic. If six per cent. cannot be earned, it is nevertheless better to earn

must be surrendered. But there is nevertheless the sunk cost of such lines to be considered, even though the lines become independent.

[1] See Hadley, *Railroad Transportation*, pp. 70, 71.

[2] Assuming, of course, that the rate is made by the managers intelligently and without government compulsion.

two or three per cent. than nothing. Not only, therefore, may certain parts of a railroad's business pay little or nothing towards the fixed charges or towards interest on the capital investment, but even the traffic as a whole may be accepted at rates yielding an inadequate return on the original cost of the plant rather than that traffic should be much smaller and return on cost still less. The fixed charges, or sunk costs, also, cannot be allocated or attributed to any special traffic. Provided the railroad plant is not fully utilized, traffic which can contribute but little above the incident train mileage and terminal costs of its own moving, nevertheless adds something towards general expenses, fixed charges, and profits, and is worth taking.[1]

It is desirable from the point of view of the greatest total of national wealth, that the plant should be used even if the return realizable is less than that which could have been realized in other industries. In that case, it is true that the labor of constructing the railroad plant has been devoted to a less profitable instead of a more profitable industry. But this labor has been expended and cannot be reclaimed. If the results of its application are not cast aside, *i.e.* if the railroad plant

[1] By way of qualification it should be said that if a road is congested and cannot carry all the traffic offered, then the traffic which can pay least is the traffic which it should reject; and additional trackage should not be constructed for this traffic unless the rates chargeable can be expected to yield fair returns on the cost of such further construction. But it is apt to be the case, in practice, that the trackage which is in any case required for a considerable amount of well-paying traffic, is also sufficient for the accommodation of other traffic which is, therefore, worth taking even at somewhat lower rates. Also, if additional trackage is mistakenly constructed for traffic which proves to be relatively unprofitable, it may nevertheless pay better to take this traffic at low rates than to refuse it. It should be hardly necessary to add that if a railroad company's trackage, bridges, stations, etc., are capable of doing more work without additional construction, it may be desirable to take additional traffic at low rates, even though this traffic necessitates some increase of rolling stock.

which has been constructed is used, the labor of using it may produce as much as and even more than it could produce if otherwise directed. It may produce not only its own proper return but some return, however inadequate, on the misdirected labor of construction. The labor of construction plus the labor of utilization may produce a less value return than if it had been otherwise directed; yet since the labor of construction has been expended, the labor of utilization may add more to the net welfare of the community than if it were turned to other channels and the railroad plant abandoned.

Cost of construction of plant influences railroad rates in so far as this cost lies in the future. If it is believed that a railroad in any given territory and connecting any given points cannot get traffic enough or charge high enough rates to earn average profit or interest on the investment, capital will not be forthcoming for its construction. If a railroad already built cannot get sufficient traffic or charge sufficiently high rates, to earn as large interest returns as most other lines of business, competing roads are less likely to be built; its own lines are less likely to be extended; the supply of transportation is thus kept down; and transportation rates tend to be kept from falling further. Even expenditures for repairs which are made for the sake of traffic during a period of several years to come and which are, therefore, of the nature of permanent investment, will not be made if it is believed that interest on these expenditures will never be realized. It is desirable from the viewpoint of national wealth that this should be the case, that further direction of labor into a relatively unprofitable line should be prevented. We may say,

then, that over a period of many years, rates must, in general, yield a fair return on cost.[1] In a business requiring such tremendous capital investment, the oscillations to one side and the other of a normal return may extend, each, over a considerable period of time.

Even after the investment has been made, a railroad will not continue to operate indefinitely if it is believed that no return whatever can be realized. For part of the plant can, if necessary, be used in alternative ways. The roadbed may have been rendered useless for any other purpose. But the terminals, and especially, perhaps, the land on which the terminal structures have been placed, would have value and would yield a return, if otherwise used. Though a railroad unfortunately located may, therefore, be operated for what would otherwise be an inadequate profit, it will not intentionally be permanently operated for a less profit than parts of its plant, such as terminal real estate, would yield in other uses.[2] Obviously, it is not desirable that the railroad should be operated, if its services are of so little value to the public, and if the terminal real estate and other parts of the plant would yield greater service in other uses.

[1] At least, investors must expect this if their capital is to be risked. See discussion in Marshall, *Principles of Economics*, 6th ed., London (Macmillan), 1910, pp. 372–375 and 420, 421.

[2] If it is objected that the value of terminal real estate for any use depends largely on the presence of the railroad, the answer may be made that this is not true if we suppose the railroad plant to be decreased by small increments or if we suppose the places in question to be served by several railroads. In other words, it is not true for the marginal railroad or the marginal track or the marginal construction of transportation plant in general. Furthermore, while it is a fact that the presence of railroads operates to increase land values, it is also true that the presence of other industries and of large population is a necessary condition to high land values and, therefore, to high value of railroad-owned real estate.

It is not enough to say that a railroad should not be constructed unless it will yield an average profit on its labor cost. It should yield, also, a surplus above this amount, as great as the land space required would yield in the best alternative use. If the railroad cannot yield such a return, it is more economical to use the land otherwise; the transportation use is not as important as the other use; the unwillingness of the community to pay as much, in transportation rates, for this use, as they can be induced to pay for the other, is evidence that the other is more needed or, at least, more desired.

The growth of a community frequently adds greatly to the profits of railroads and other land owners. The land comes to have more rental value for nearly all purposes. Though this community growth is partly due to railroads, it is usually the result of many causes of which the building of any particular railroad is only one. It is frequently asserted, therefore, that this greater profit of railroads is unearned and that it should not be enjoyed by the owners of railroad securities. Assuming this view to be correct (and it is unnecessary for our present purposes to prove or disprove it), the conclusion does not follow that rates should be reduced. As above stated, a railroad does not justify itself unless it can earn as much as the land could earn in some other use. If the rental value has gone up for other uses because of community growth, presumably the amount which the land can earn if used for a railroad, will be greater. Rates will probably not be higher and may even be lower, but business will be larger. To reduce rates arbitrarily by law, in order to deprive railroads of an alleged unearned increment, would serve no good pur-

pose. It would be a discrimination against railroads as compared to other land owners. It would largely prevent the use of land for railroad building, even, perhaps, when railroads are much needed. It would give the benefit of the unearned increment to those who patronize the roads instead of to those who own them, or to the different members of the community in proportion to the use each makes of the railroads. It would not give the unearned increment to the public as a whole, to be used for public benefit. If the unearned increment belongs to the whole community, as is frequently claimed, this community right can be asserted with least inconsistency and least interference with an economical distribution of labor to different lines, by a general and properly apportioned tax on land values.

§ 4

Average Railroad Rates as Affected by Degree of Utilization of Railroad Capital

Since expenses for the production of train mileage do not increase in proportion to traffic, and since general expenses and fixed charges (or sunk costs) taken together do not greatly depend, within the limits of utilization of plant, upon the amount of traffic, it follows that average rates can be made lower without being made unprofitable, if utilization of plant is relatively complete. Where traffic is extremely heavy, even though there are a number of railroads to carry it, each railroad may be fairly well utilized and so able to make low rates. Where traffic is very light, even a single one-track railroad may be utilized to so slight a degree that its rates must be high to yield a reasonable profit.

We have said that the tendency to decreasing proportionate cost does not apply to the same extent after existing plant is fully utilized, though it may apply to some extent if a larger plant can give more economical service than a smaller. A double-track road, fully utilized, may, as has been already pointed out,[1] be able to carry goods more cheaply than a one-track road. Trains can follow each other more closely and with less switching, each track being used only for the traffic in one direction. Maintenance costs will not probably increase in proportion to the efficiency of the plant. Similarly, large and powerful engines, and cars of great carrying capacity, which it would not pay to use if traffic were small and the average train load light, may mean much cheaper transportation if the volume of traffic justifies their use.

§ 5

Expenses and Rates of Water Transportation

Expenses of water transportation may be classified in much the same way as expenses of rail transportation. First, there are the expenses which pertain particularly to moving the traffic, and depend most nearly upon the amount of traffic. This class of expenses includes fuel, wear and strain on machinery and vessels, so far as due to use, and, in a great degree, wages of seamen. Even these expenses do not vary strictly in proportion to traffic, since they are not twice as great for a vessel fully loaded as for one carrying only half a cargo. But in the case of the tramp vessel, sailing almost invariably only after it has secured a full or nearly full cargo, these

[1] § 2 of this Chapter (I of Part III).

expenses probably vary in something like the same proportion as business. And traffic which cannot pay enough to cover these expenses would be refused.

Second, we have terminal expenses, including the cost of loading, unloading, and transshipping, the charges for pilotage and towage, charges for wharf space, etc. If a navigation company owns the wharves it uses, part of the expense for wharf repairs may properly be classed with terminal costs. Terminal expenses vary to a considerable degree as the volume of traffic but not in proportion to the distance it is carried. All traffic carried must therefore pay enough to cover the incident terminal costs, but traffic carried long distances will not necessarily be required to pay higher rates than that carried short distances, except as the mere cost of carrying it is greater.

General expenses, in the case of navigation companies, include some of the expenses of managing, *e.g.* the salaries of ship officers so far as these salaries may be steady regardless of increases or decreases of traffic. In the case of companies operating a line of ships, expenses for general oversight, freight soliciting, etc., would have to be included. General expenses would include, also, cleaning of the hulls of vessels, part of the repairs, part of the expense of wharf maintenance where a company itself owns the wharves used, etc. These expenses would stop if business were given up and, therefore, the business as a whole must cover them; but they do not vary as traffic varies, cannot be definitely allocated, and do not fix a minimum rate for any particular business. If it is necessary to get the business, a rate may be made for certain special traffic,[1] or between certain special

[1] See, however, § 6 of this Chapter (I of Part III).

points,[1] or during a given period of time or season when business is not easy to secure, which pays but little towards the general expenses. It is better to take traffic which helps to pay the general expenses, even if it does not pay what appears to be its mathematically proportionate share, than to refuse this traffic and so lose the smaller share which it can pay. Only if equipment is fully utilized by the better paying traffic, can traffic which contributes even but a little towards general expenses be properly refused. On the other hand, traffic as a whole must pay enough, in the long run, to cover general expenses, or it will not be worth while for a navigation company to continue operating.

Fixed charges include interest on the original cost of ships and of terminals, if construction is with borrowed capital. In any case, the original cost is a sunk cost. It cannot be recovered (except so far as the materials used have value as lumber or old iron, etc.) if the investment of capital proves to have been unwise. The individual investor may sometimes recover it by disposing of his ships to some one else for more than they are worth, but for society as a whole, the choice cannot be made again. The fixed charges or sunk costs do not vary with traffic and cannot be definitely allocated. They do not fix a minimum rate for any special traffic. Part of the cargo of a regular-line ship (which must sail on schedule, whether loaded or not) may pay but little towards the fixed charges or even towards general expenses, and yet be worth taking if traffic is light and nothing else can be had to make up a full cargo.[2] Even a vessel carrying cargoes in bulk, *e.g.* a "tramp" vessel,

[1] See remarks at end of § 1 in Chapter IV (of Part III).

[2] Except roughly over extremely long periods. See remainder of this section.

may sometimes carry freight during a dull season or on a single trip, though this traffic does not pay the usual profit, rather than to refuse the traffic and get no profit.

If the business as a whole of a navigation company does not pay general expenses and cannot be expected to, abandonment of ships is more economical than continued use, although in some cases vessels can, as railroads cannot, be taken into other districts where their use might pay. But if the traffic pays all the general expenses and something besides, even if this surplus is not a fair interest on the original investment (but is fair interest on the value of the material for other uses), continued operation is worth while. If ships have been mistakenly built for traffic which cannot bear profitable rates, or if they have been built too small or too large for the most efficient service, it is nevertheless better to earn 2 or $2\frac{1}{2}$ per cent. than nothing. It is better from the viewpoint of national wealth that such equipment should be used even if its construction has involved a partial waste of labor, than that the equipment should not be used and that the labor of its construction should be, therefore, a total waste.

If, however, the average rate chargeable, multiplied by the traffic, cannot yield enough to pay fair interest on investment in ships, new ships are not likely to be built as rapidly as commerce increases, or even, perhaps, fast enough to replace the old as they become unseaworthy. As long as existing ships can be kept in service by not too extensive repairing, they will be used. But anything in the nature of renewed investment will not occur. It would involve a diverting of labor into a relatively unprofitable line, if it did occur. So, in the

long run, although not necessarily over a period even of several years, rates charged must cover interest on investment, else supply of service will not equal demand.

§ 6

Comparative Importance of General Expenses and Fixed Charges on Railroads, on Natural Waterways, and on Canals

It should be particularly emphasized that transportation on the ocean and sometimes on lakes and rivers differs from railway transportation in the relative unimportance of general and fixed charges. There are no appreciable general expenses in ocean navigation for maintenance of way,[1] and there are no fixed charges (or sunk costs) resulting from the necessity of constructing a way or roadbed and tracks for the passage of cars. Both general expenses and fixed charges appear to be of less relative importance in the case of ocean and sometimes lake and river transportation. Water transportation seems, therefore, not to be so markedly a business of decreasing proportionate expense or increasing return.[2]

Furthermore, in the case of securing rail transportation between two distant points, the least possible investment is a roadbed and a single track, costing, perhaps, millions of dollars; though the traffic available may not at all fully utilize such a plant. It is very apt to be the case, therefore, that if there is enough of paying traffic

[1] Except as lighthouse service, etc., may be so regarded; and this is an expense usually borne by government.

[2] Cf. Report of the Commissioner of Corporations on *Transportation by Water in the United States*, 1909, Part I, pp. 13, 14.

to warrant building the road, it will be worth while to take additional traffic at lower rates, when such additional traffic will pay anything whatever, however little, towards net profits. In the case of transportation on a natural waterway, however, nothing but vessels and wharves have to be constructed. If possible traffic is small, fewer vessels will need to be constructed for it, or the vessels constructed may be made of smaller size. In a sense, a part of a vessel can be constructed for the traffic, since a vessel to be used mainly for other traffic can make an occasional trip between the two points in question. Thus, in the case of transportation on natural waterways, excess facilities on which to pay interest are, perhaps, less frequently constructed, and there is probably less occasion to seek additional traffic at lower than average rates, in order to utilize such facilities. So far, of course, as larger vessels are a distinctly more economical means of carrying freight than smaller ones, there is a motive for building ships large, even if, fully to utilize them, some freight must be taken at slightly less than average rates.

Water transportation expenses seem to be more analogous to railroad expenses, when vessels navigate a canal or other waterway on the improvement of which much money has been spent. The annual cost of maintaining the canal or other waterway, *e.g.* dredging or repairing, or both, may be regarded as very largely a general expense. The amount spent in constructing or improving the waterway is a sunk cost, and, if the money was borrowed, interest on it should be regarded as a fixed charge. As a matter of practice, such improvements are commonly made, in this country, by government, and the interest is apt to be regarded, not as a

fixed charge on the traffic, which ought to bear it, but as a fixed charge on tax-payers.

Taking the case of a canal, the logical conclusion, according to the principles which have been set forth in this chapter, regarding railroads, is, that no goods should pass through without paying whatever extra costs their carrying occasions, including cost of moving, wear occasioned on the canal, etc.; that traffic which can pay that, and anything besides towards general expenses, should be accepted rather than rejected, if plant is not fully utilized; that the traffic as a whole must pay all general expenses of operating the canal and keeping it in repair, else permanent operation will not pay; that it may be better to operate for a small profit, once the canal has been constructed, than to refuse to operate because profits are not large; that the construction of a canal or the improvement of any waterway should not be undertaken unless a profit approximating that in other investments is reasonably to be expected, and that the construction or improvement of a waterway when such returns cannot be had, involves a diversion of labor from a more profitable into a less profitable line. It may be added that a canal, like a railroad, should not be constructed if some other use of the necessary land space would yield a larger return.

§ 7

The Proper Basis of Wharf Charges

Wharves are often owned by other interests than those owning the vessels using the wharves, not infrequently by states or municipalities. It may be worth while, therefore, to give brief separate attention to the sub-

ject of wharf charges. The charges for use of a wharf may properly be high enough, taken as a whole, to pay the average return on necessary investment for construction. Also, the space required, if it has value for other purposes than as wharf space alone, *e.g.* for the location of a manufacturing plant on the water's edge, may rightly be made to yield as much when it is used only as a wharf. Otherwise, the space is devoted to one use, and some other use, able to pay more and, therefore, presumably more worth while to the community, is excluded.

Or again, if, about any given harbor, the space which can satisfactorily be utilized for wharves is limited, the charge for use of wharves may, not unjustifiably, be high enough to keep the demand for wharf space down to the available supply, or to keep the demand for the more desirable wharf space down to the available supply. Such a charge cannot operate to decrease commerce, for it allows all the commerce for which there are facilities, and no more commerce could pass through a given port if there were no charge whatever. Neither will such a charge operate to raise prices to consumers, for it will not limit the supply of goods going through the given port or over the desirably located wharves, any more than such supply would be limited anyhow by the lack of space. The limitation of the supply of goods is all that can raise their prices, and the supply of goods is not affected. In any case, the remainder of the goods, beyond what the given port or the given desirable wharves could provide accommodation for, would have to go inland by way of other ports or other wharves, and the competition of these will determine supplies and prices. If the superior port or wharves did not charge

for its or their superiority, the fortunate users (ship owners or sellers of goods) would simply get a surplus profit over what their rivals could get, analogous to land rent.

The proper charge, then, is a fair rent for the space used, based upon its desirability and its scarcity, and a fair interest for any necessary cost of construction. This is what the charge would tend to be under competitive conditions. No one would be likely to charge more for his wharf space, else it would not be used. No one would be likely to charge less, for the demand would make it possible for him to get that amount [1] whether others chose to do so or not. What would be a normal competitive charge under conditions of private ownership is what ought to be charged by state or municipality if it owns the wharves.

The statement that a proper charge includes economic rent for space required does not necessarily mean that this rent should go ultimately into the pockets of private persons. Space afforded is not service rendered or effort sustained by an individual. The rent for it may plausibly be regarded as an unearned income and as properly belonging to the community. But, in any case, the rent of wharf area constitutes in this regard no separate problem. It should be judged along with the problem of land rent in general.

§ 8

Economic Objections to Monopolistic Transportation Rates

Up to this point we have been concerned chiefly with the question of what expenses transportation rates ought

[1] See Part I, Chapter I, § 2.

to cover and what returns on investment they ought to yield. A few words should be added regarding what returns they ought not to yield. They ought not to yield monopoly profits. High rates yielding surplus or monopoly profits are distinctly adverse to the general interest. Not only do they involve an unfortunate distribution of the products of industry, but also they involve a diminution in the total amount of these products. For a monopolistic transportation company will charge those rates on each kind of traffic which yield the largest profit, even though a lower average of rates would be profitable, would more fully utilize the transportation plant, and would widen the field of commerce. Monopoly rates prevent transportation which would be worth to the community the labor cost required, which would be worth fair rates, but which cannot take place when excessive rates are charged.[1] Monopoly rates, like tariffs, interfere with commerce between communities, with commerce which would be profitable, if not thus prevented, to both or all the communities engaged in it.

§ 9

Summary

The discussion of expenses of water transportation has already given us, because of the analogy between the two, something of a review of the principles regarding railroad expenses. A brief summary of the conclusions of this chapter may, therefore, suffice. For both rail and water transportation, we made a fourfold classifi-

[1] It is impossible for the monopolistic company to avoid this result by making low rates on such particular parts of its traffic only as are for the use of hesitating consumers, since nobody knows who these consumers are or which special tons or bushels will eventually go to them.

cation of expenses. First there are the expenses pertaining most particularly to the moving of goods. Second there are terminal expenses, affected by the volume of traffic but not by the distance carried. Third, there are general expenses which will cease if the plant or capital equipment is abandoned but which change only a little with considerable increases or decreases of business. Fourth, there are fixed charges or sunk costs, which, once the investment has been made, do not vary with traffic. Each item of traffic must pay a rate high enough to cover the additional expenditure which it occasions. To carry traffic which cannot pay this involves economic waste. Traffic as a whole must cover general expenses, else continuance of transportation service becomes unprofitable. Construction of transportation facilities should not be undertaken unless there is reasonable probability that traffic as a whole can pay a fair return on investment. Yet if investment has been mistakenly made, it may be better to operate for small return than to abandon the capital so invested. Total charges should be high enough to pay at least as large returns beyond interest on construction cost as the space used would yield if devoted to the best alternative purpose. Up to the limit of complete utilization of plant, expenses of transportation increase less rapidly than business. Beyond that limit, they may increase less rapidly than business if the larger plant is more efficient than the smaller. But additions to plant may mean, for a time, incomplete utilization and so greater proportionate expense. Water transportation on free waterways appears to be less subject to the tendency towards decreasing proportionate expense than rail transportation, because there are no corresponding

expenses for construction and maintenance of way. Water transportation on canals is in this regard more analogous to rail transportation. Wharf charges should cover interest on necessary construction cost plus a normal land rent for the space used. Finally, as to both rail and water transportation, the conclusion is that monopoly rates are uneconomical as well as unfair, since they tend, like tariff restrictions, to interfere with commerce which is normally profitable and which ought to be allowed to take place.

CHAPTER II

The Competition of Transportation Companies

§ 1

Competition of Routes

Competition of transportation lines may be classified as of four kinds: competition of different companies over the same route, competition of routes, competition of directions, and competition of locations. Let us consider these four kinds of competition in order. Competition of different lines over the same route applies particularly to transportation on free waterways, for example, on the ocean. In such transportation, the way or route is not the possession of any one company but may be used by all. The different companies operating over a given route may be in competition with each other.

Competition of routes may exist between navigation companies or railroad companies or both. By competition of routes is meant competition between two or more different routes or lines of transportation, either or any of which can carry goods between two given points. Such a competition, for example, is that which obtains between Chicago and New York. These cities are joined by a number of transportation lines. Goods moving between these two points have a choice of routes; and the tendency is for the goods to be sent, in each case, by that route which is, for the shipper, most economical, considering rates, speed, liability to

injury, etc. Some of the possible routes are: that by the Great Lakes, the St. Lawrence River, and the Atlantic Ocean, that by the Lake Shore and Michigan Southern and the New York Central railways, that by the Pennsylvania lines, and others. The transportation of wheat, corn, and other farm products from American centers of production to Europe, *e.g.* between Chicago, St. Louis, etc., in the United States, and Liverpool in England, is another example. These products can frequently be taken via the Great Lakes, via any of the trunk lines, or via lines operating in southern territory to Norfolk, Galveston, or New Orleans, and thence to Liverpool. Still another example of competition of routes is the traffic from Australia and China to New York, which may be carried either by ship westward via the Suez Canal or by ship eastward to San Francisco and thence by rail to New York (soon also, doubtless, the Panama Canal will be a permanently available avenue of transport). These two different routes are in vigorous competition for the traffic.[1] We have substantially the same kind of competition, *i.e.* of routes, when goods are stored with wholesalers or jobbers at intermediate points, and, likewise, when they are changed in form, say from raw materials to finished products, at intermediate points, provided source and destination of traffic by the various routes are about the same. The different transportation companies compete, each to carry goods from the common source to manufacturers or jobbers on its own line and thence to the common market. Each transportation company desires that the conditions shall be as favorable for such stoppage and reshipment on

[1] McPherson, *Railroad Freight Rates*, New York (Holt), 1909, p. 146.

its line as on rival lines. In order, however, that the competition of routes between two or more rail or water lines may be availed of, it is not necessary that the goods to be shipped should be produced at a point where several such lines meet. It is only necessary that the goods should be produced within reasonable wagon- or truck-hauling distance from such routes. Thus, within the wheat- and corn-producing regions of the United States, numbers of farms are located near enough to two or more railroad lines to exercise a real choice among these lines.

Competition of routes may mean and frequently does mean that goods are taken to their destination by a very roundabout way. Sometimes the distance freight is actually carried in being taken from one point to another is from 50 to 100 per cent. greater than the shortest possible distance.[1] In the Savannah fertilizer case, for example, it was shown that goods were carried from Charleston, S.C., to Valdosta, Ga., by connecting lines of railroad, a distance of 413 miles, when they might have been carried by a more direct line to Valdosta, a distance of only 275 miles.[2]

Other things equal, such roundabout transportation is uneconomical.[3] It costs more to carry goods by a long than by a short route between two given points. Assuming the same rate on either line, the long line presumably has a less surplus as profit than the short line would have. Diversion of freight to the long line, therefore, probably means that the short line loses a

[1] W. Z. Ripley, *Railroads, Rates and Regulation*, New York (Longmans, Green & Co.), 1912, pp. 269, 270.

[2] Interstate Commerce Reports, Vol. VII, p. 476 (458–480).

[3] Cf. Ripley, *Railroads, Rates and Regulation*, Chapter VIII, where this and other transportation wastes are criticized.

larger profit than the long line gains. Looked at from the point of view of community economy, it means that a greater amount of labor is used to secure a result which a smaller amount of labor would equally well secure. This greater amount of labor is less profitably employed than it might be, with resulting loss in the total of the community's wealth. As in the case of the protective tariff, labor is employed where it does not yield the maximum return to the community. It is not, of course, always the shortest line in miles which is most economical. The shortest line may be one which has relatively steep grades and so requires more labor and fuel than a longer one. As between two lines of equal length, the choice should ordinarily fall upon the more level; while as between two lines of equal grades, the choice should ordinarily fall upon the shorter. For the same reasons, it is desirable, *other things equal*, that a place should have goods brought to it from the nearest source of production and that centers of production should send their goods to the nearest markets. This, of course, may be very undesirable when other things are not equal. It may be better that goods be brought from a far cheap source than from a near-by dear one. But where production costs are equal, transportation costs should be the least possible.

§ 2

Circumstances which May Make Carriage of Goods by a Longer Route More Economical than their Carriage by a Shorter Route

There are, however, three possible situations, in any one of which it may be desirable that goods should be

carried by a relatively long and roundabout route instead of by a shorter and more direct one, even though grades are equal. To illustrate the first case of this sort, suppose the cities *A* and *D* to be connected by the two railroad lines *AD* direct and *ABCD*. (See figure 1.)

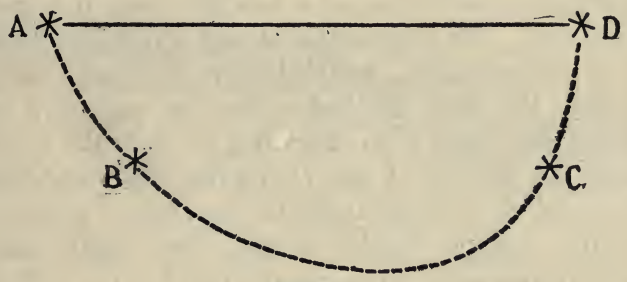

FIGURE 1

Suppose, also, that the traffic between *A* and *D* is more than the direct line *AD* can properly care for. Then it may well be that the surplus traffic, beyond what the line *AD* can carry, should go by the indirect line *ABCD*, rather than that a new direct line should be built between *A* and *D* or that the line *AD* should increase its trackage. For the construction of a new line or more trackage involves an additional investment of capital. The capital invested in the roundabout line *ABCD* has been already sunk and cannot be recovered. If the line *ABCD* yields any appreciable interest returns, it will probably be worth while to operate it, even though these returns are small. From the point of view of greatest national wealth, it is desirable that such a plant should be operated, even though it would not be desirable, could the choice be made again, to construct the plant.

On the other hand, the construction of a new line or

new tracks should not be undertaken unless rates can be charged which will pay about the average return on investment. The old roundabout line may be able to make profit enough to justify its continued operation for a great many years, on rates lower than would justify the construction of a new line, even if a more direct one. The construction of such a new line, under these circumstances, would involve economic waste. Exactly the same conclusion may be reached if we assume that there is no direct line but only the roundabout line between *A* and *D* and that the roundabout line is able to carry the traffic between these two points. To the question whether a direct line ought, under such circumstances, to be constructed, it is not unlikely that a correct answer would be a negative.

To illustrate the second case where carriage of goods by a more roundabout line may be desirable, suppose (see figure 1) that there is a great deal of possible traffic between *A* and *D*, but that no railroad connecting those points has yet been built. The question is, whether a direct or an indirect line will be the more profitable. Other things equal, the direct route would be preferred. But let us suppose that *B* and *C* are thriving towns, and that the traffic to and from each can be greatly developed, while on a direct line from *A* to *D*, no other towns are located. On this supposition, a direct line, if constructed, must be able to earn enough on the through traffic between *A* and *D*, to pay not only production-of-train-mileage expenses and terminal expenses, but also all of its general expenses and profits. To do this and yield profits worth building for, it may have to charge fairly high rates. If a roundabout road is built, through *B* and *C*, it will have the

local traffic between *A* and *B*, between *B* and *C*, and between *C* and *D*, as well as the through traffic between *A* and *D*. The local traffic will presumably help to pay general expenses and interest or profits on the investment. The local traffic may, in fact, pay enough to cover all the general expenses and almost enough to justify, even with no other sources of revenue in view, the construction of the road. If the road is built, rates can be made on the through traffic between *A* and *D*, which yield very little more than is required to cover additional production-of-train-mileage costs and terminal costs; yet this little more will make the road a paying proposition. Even though freight from *A* to *D* or *vice versa* would have to be carried a longer distance on this road, it may be possible to carry it for lower rates than would pay all expenses, including general expenses, and including also a fair profit, on a more direct road. Yet without the through traffic between *A* and *D*, the line *ABCD* might not be able to make an average profit, or it might be able to make such a profit only by charging higher rates on its local, short-distance business. If, then, a more indirect line can carry goods more cheaply between *A* and *D* than a direct one, while making no less a per cent. or a greater per cent. profit, and while, perhaps, being able to make lower rates on its intermediate traffic than would otherwise be necessary, the former is the more economical route to select.[1] If the indirect route is chosen, the

[1] If, however, both a direct and a roundabout line already exist between *A* and *D* and it is merely a question of constructing a new line or additional trackage, because of insufficiency of the existing plants, then whether the direct or the indirect route would be economically preferable will depend upon the relative amounts of intermediate and through traffic. If the existing roundabout road can handle all the intermediate traffic, *i.e.* the traffic from *A* to *B*, from *B* to *C*,

additional labor necessary to carry the longer distance traffic is less than if a direct road is constructed for the longer distance traffic alone. The same principle may apply if the more direct line can hope to secure some intermediate traffic, but considerably *less* than the other. The same principle may apply, also, if the direct railroad, *AD*, though able to carry all the local or intermediate traffic available along its line, is nevertheless inadequate, without the construction of one or more additional tracks, to carry, besides, all the traffic seeking to go the entire distance from *A* to *D* and from *D* to *A*. In such a case, the additional track or tracks on this more direct route, if constructed, would be solely for the sake of the longer distance traffic, and to lay them would be uneconomical unless the longer distance traffic would alone yield a reasonable profit on the additional capital investment required. Supposing that a roundabout line, through *B* and *C*, had not previously been built, and that, if constructed, such a line could be largely supported by intermediate traffic, while yet being able to carry some of the longer distance traffic also, the roundabout line might be a more economical and more profitable investment of capital than additional trackage along the direct line.

The third case to be here considered is a case where the lines *ABCD* and *AD* (see again figure 1) have both

from *C* to *A*, etc., and the inadequacy of facilities is due solely to the excess of the *A* to *D* and *D* to *A* traffic over what the direct road can carry, additional construction along the more direct route would almost certainly be the more economical investment of capital. Rather than lay additional tracks, the roundabout line should, perhaps, under such circumstances, resign all through traffic and confine itself to intermediate traffic. But if additional trackage must be constructed by the roundabout line for the intermediate traffic, and if such additional trackage will also serve for the carriage of some of the through traffic, the roundabout line may be economically justified in carrying both.

been built, but where the traffic between *A* and *D* is not more than can be taken care of by one of the roads alone. Not only is there no need for new construction, but already existing facilities are in excess of business. Unless more traffic is to be hoped for in future, it will be the truest economy to abandon one of the roads. Otherwise the community must be burdened with two sets of general expenses and must in so far lose the economy that comes from complete utilization of a transportation plant.[1] If other things are equal, the conclusion will be that the more roundabout road should be the one to be abandoned. But, as in the second case, other things may be unequal. The roundabout road may be able to rely upon intermediate traffic which the more direct road cannot hope to secure. In that case, the direct road *AD* cannot afford long to operate unless the through traffic between *A* and *D* can bear rates high enough to cover most or all of the general expenses of the road. But the road *ABCD* has, by hypothesis, intermediate traffic to and from *B* and *C*, and this intermediate traffic may possibly be considerable enough to pay all the general expenses of the road and something towards profits. It may be worth while to operate the road *ABCD* even without any of the through traffic between *A* and *D*, or with rates on this through traffic barely above the additional production-of-train-mileage costs and terminal costs necessary to move it. The roundabout road may therefore be able to make lower rates on through traffic between *A* and *D* than the direct road could

[1] This saving has been already in part lost, when the unnecessary line has been constructed, since capital which might have earned a fair return has been put where it cannot do so.

possibly afford to make, even though the former must carry the goods longer distances; and may yet be a more profitable investment for its owners than the latter could hope to be without charging higher rates. It may sometimes, therefore, be truer economy to abandon the direct than to abandon the roundabout line between two given points.

An illustration of a movement of traffic in part by relatively indirect routes is furnished by the import and export trade of the United States. Goods are carried to Chicago and other middle western cities from Europe, and from the great grain-raising sections of the United States to Europe, by various transportation routes, and not always by the shortest. All the important ports and the railroads and steamship lines serving these different ports are in competition for this traffic. Wheat may be carried due south to New Orleans, or southeast to Galveston, and thence to Europe, instead of going east through Baltimore, Boston, or New York. If a railroad from the American wheat and corn regions to Norfolk, Newport News, Galveston, or New Orleans is useful for domestic commerce, and can add anything to its profits by engaging at lower rates in export and likewise import trade, it may be as well or better that such a railroad should engage in this trade, as that the New York Central and the Pennsylvania systems should enlarge their plants so as to do more of export and import business. The different ports and railroads concerned in this business have on many occasions engaged in contests to secure, each, a larger share of the trade. These contests can only be satisfactorily settled by such an agreed relation of rates as will secure to each road a quota of the business.

The Interstate Commerce Commission itself, when endeavoring to settle such a contest, has been able to find no better basis than this.[1]

The conclusions we have reached, should, it is believed, have some weight against any proposal to prohibit absolutely the competition of roundabout lines. We have seen that there are possible cases where a roundabout line may more profitably be built for the traffic between two points than a direct one. Yet if the builders know in advance that they will not be allowed to compete against a direct one, should the latter be constructed, they will be less apt to build the roundabout line. Undoubtedly there are wastes of competition in the form of uneconomical carriage of goods over unduly long routes to destination, and some legal limitation on these wastes may be desirable. Yet on the other hand, as we have seen, it is not necessarily always the shortest line which is really the most economical for the purpose. Furthermore, the stimulus of competition between rival routes is not altogether without beneficial effects in hastening improvement, increasing efficiency, and keeping down average rates. The Interstate Commerce Law of the United States penalizes the competition of roundabout lines by forbidding rates on intermediate traffic, *e.g.* from *A* to *C* in our figure, higher than rates on longer distance traffic over the same line in the same direction, the shorter haul being included in the longer; though the rigor of this section (4) of the law is lessened by the power of the Interstate Commerce Commission to set it aside on application of the common carrier concerned, in cases where such a ruling

[1] See Interstate Commerce Reports, Vol. XI, pp. 13–81, particularly pp. 62, 63.

seems proper, and to whatever extent circumstances seem to warrant. An application of this law or of its principle of limitation, which should require of the straightest line between two points, strict conformity to the law as now worded, and which should allow to more roundabout lines, in some cases, a percentage departure from this rule, might satisfactorily meet the difficulty.[1] A more roundabout line might be allowed to depart from the rule by a larger per cent. than one less roundabout, since otherwise reduction of its rates on goods going over the long distance might require so great reductions on its intermediate traffic as to deprive it of revenue. Yet after a certain degree of roundaboutness had been reached, further increase of the allowed percentage departure from the rule might properly be refused, since an undue difference would mean either that the long-distance traffic was being carried for less than the additional cost occasioned, or that the intermediate traffic was being charged exorbitant rates.

The solution here suggested would not do away with all uneconomical roundabout carrying of goods, but neither would it do away with the stimulus of competition. It may be better to have competition even with the economic waste inseparable from it, than not to have competition at all. No government rate regulation can ever stimulate progress as competition does, even if it can successfully prevent the enjoyment of monopoly profits. If the percentage of deviation from the long and short haul rule were properly arranged, no road would have any unfair advantage over any other, and competition, so far as it existed, would influence

[1] For further discussion along this line, see Chapter V (of Part III), § 1.

intermediate as well as strictly competitive traffic. An administrative body such as the Interstate Commerce Commission, may well, perhaps, have power to decide in each case, in view of all the circumstances, the extent of departure from the rule which ought to be allowed, and the amended Federal law, as above stated, specifically gives to the Commission this power.[1]

In the case of ocean transportation, there is, as has been pointed out,[2] no expense for construction or maintenance of way. It would therefore never be worth while to abandon a more direct route in order to save expense of upkeep. Unless winds or currents, etc., interfered, full cargoes shipped at one point, and destined to another, would ordinarily go direct, though two or more available routes may, not infrequently, be equally short or otherwise equally favored by nature. A somewhat roundabout route may sometimes be chosen for the sake of intermediate traffic, especially in cases where through traffic will not by itself provide full cargoes sufficiently often to justify the frequency of service desired by shippers. Also, a roundabout line, whose vessels are mainly but not quite utilized by intermediate traffic, will sometimes enter into competition with a direct line for through traffic, in order to carry more nearly full cargoes. Sailing vessels frequently follow indirect routes to avoid regions of calm and of unfavorable winds, but in such cases the route which is long in miles may be the shortest in time.

[1] Its exercise has recently been upheld by the Supreme Court. See Intermountain Rate Cases, 234 U. S., 476.

[2] Chapter I (of Part III), § 6.

§ 3

Competition of Directions

The third kind of competition which we have to consider is competition of directions.[1] To make clear what conditions must exist in order that there should be competition of directions, we shall begin with an assumed case where such competition hardly exists in any significant degree. Suppose two roads leading from *A*, which we shall assume to be a center of coal mining, one to *B* and the other to *C* (figure 2). If

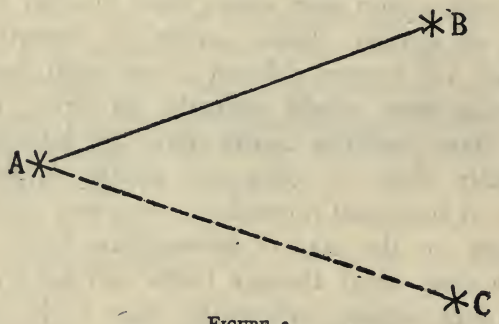

FIGURE 2

the roads *AB* and *AC* should compete strenuously, each endeavoring to carry the coal over its own line to *B* and to *C* respectively, we should have here an example of competition of directions. But unless we make further assumptions, there is little basis for a conclusion that such competition would take place. Neither road need reduce its rate on the coal to a competitive level even

[1] This, and the kind of competition next to be considered, are generally lumped together with, it is believed, inadequate analysis, under the head of competition of and for markets. See, for example: Noyes, *American Railroad Rates*, Boston (Little, Brown, & Co.), 1906, pp. 125, 126; Johnson, *American Railway Transportation*, 2d revised edition, New York (Appleton), 1909, p. 265; Ripley, *Railroads, Rates and Regulation*, pp. 118–123.

if the other road does so, and neither is likely to gain but is rather likely to lose from taking the initiative in such reduction. Suppose the road *AB* to make low rates on coal to *B*. It does not follow that the road *AC* must make low rates to *C* or lose the traffic. It is true that the producers at *A* will prefer to ship their coal to the market which will yield them, after subtraction of transportation expenses, the largest return. But the people at *C* will presumably need coal, and if the road *AC* has a monopoly to that point, it can probably continue to charge a high rate and still get large traffic. The people at *C* will have to pay a high enough price to cover this transportation expense and induce producers at *A* to send them the coal. The road *AB* will not succeed in diverting much more than previously of the output of *A*, to the point *B*, and therefore, since its rates are lower, will suffer a reduction of its revenues.[1]

Let us now consider a situation in which competition of directions might accomplish something appreciable for the community. Suppose, as before, two roads leading, one from *A* to *B* and the other from *A* to *C*. But suppose that both *B* and *C* are in part supplied with coal by competing roads leading from other coal-producing sections than *A*, namely, from *D* and *E* respectively. (See figure 3.) We may suppose, also, that the annual coal production of *A* is not sufficient to satisfy completely both of the markets *B* and *C*. In this situation, the lines *AB* and *AC* can charge high rates only by combination or agreement with each other and at the expense of producers at *A*. The price

[1] The possibility that *B* may be built up and that industries may desert *C*, and the consequent effects on the revenues of the roads, will be discussed with a consideration of the fourth kind of competition, that of locations.

of coal at B and likewise at C, because of the supply from another source or sources than A, cannot exceed, say, \$5 a ton. High railroad rates from A, *e.g.* \$3 a ton, cannot force consumers at B and C to pay more than \$5, and must, therefore, result in a return of not more than \$2 per ton to producers at A. But if the line AB, for example, reduces its rate from \$3 to \$1, in order to encourage larger shipments of coal from A to B, then the line AC must reduce its rate on coal carried

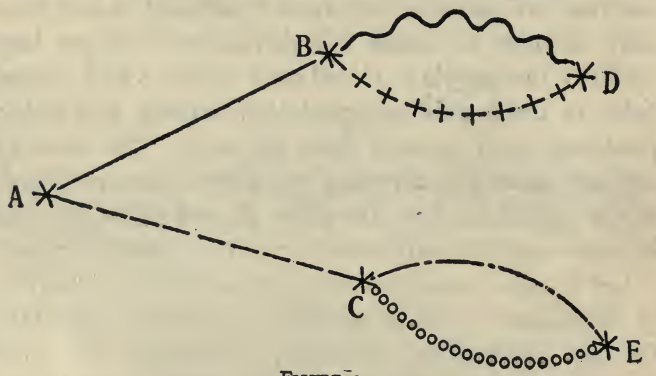

FIGURE 3

from A to C, or forego most of the business.[1] The line AC cannot continue to enjoy high rates on coal shipped from A to C, by imposing a higher price for coal on consumers at C, since competition of lines from E to C insures these consumers a price not above \$5 a ton. Neither can AC impose the expense of \$3 per ton rates, upon producers at A, thus keeping their net returns down to \$2 per ton, since, if AC attempts this, producers

[1] Unless we suppose that the output at A is considerably increased, so as to leave a surplus for the high rate road even after a low rate by the other has diverted the former output. But it is not to be supposed that capital will be rushed to A and the poorer mines previously unused be suddenly exploited, for no better returns than could be had before.

at *A* will ship most or all of their coal to *B*, over the line *AB*, receiving about $5 a ton at *B*, paying $1 a ton freight, and having a net return of $4 a ton at the mines.[1] There is competition of directions because the coal produced at *A* will go, in the main, to *B* or to *C* according to the rates made by the rival roads *AB* and *AC*, leading in different directions from the same producing center.

Let us consider another possible situation. Suppose coal to be produced at *A* and at *D* and to be marketed

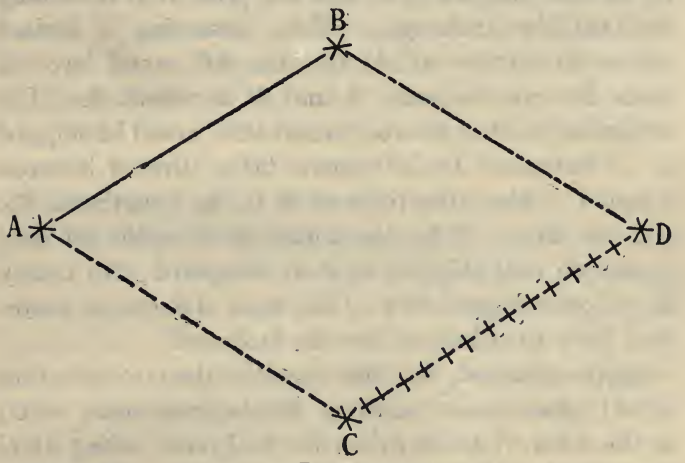

FIGURE 4

at *B* and *C* over the railroads *AB*, *DB*, *AC*, and *DC*. (See figure 4.) Suppose that, at first, each of the roads is charging $3 a ton to carry the coal either from *A* or from *D* to either *B* or *C*. The price of coal at *B* and at *C* is $6 a ton, and, therefore, at the sources of production, *A* and *D*, it is $3 a ton. One of the roads, for

[1] In practice, the extra supply of coal at *B* would tend to lower its price there somewhat below $5 and to lower the returns at *A* somewhat below $4. But the change in figures involved does not change the essential principle of the case.

example, the road AC, reduces its rate to $2, hoping thereby to get more of the business. We have to inquire whether such an action will force reduction on any or all of the other roads.

The effect of the reduction by AC will be different according as the benefit goes mainly to the producers at A, or to the consumers at C, or is divided more or less equally between them. Suppose, first, that the benefit goes almost entirely to producers at A, these producers receiving about [1] $4 instead of $3 per ton for all coal shipped to C, and the price at C remaining substantially unchanged. Then (assuming a limited annual production at A) the line AB would have to lower its rate between A and B to about $2. For otherwise, most of the coal mined at A would be shipped to C, instead of the shipments being divided between B and C. Since the price at B is, by hypothesis, $6, and the rate to B $3, the miners at A would get only $3 net on coal shipped to B as compared with nearly $4 on coal shipped to C. The road AB would, therefore, have to reduce or lose the business.

Suppose, second, that the benefit of the rate reduction by AC goes almost entirely to the consumers at C, in the form of lower prices for coal, coal selling at C for little above [2] $5 instead of for $6 a ton. The reduc-

[1] Probably not quite $4, for the greater amount of coal shipped to C in consequence of the reduced rate would almost certainly reduce the price somewhat. Yet this reduction of price might conceivably be small, because of an elastic demand at and about C, and because a small reduction of price might discourage and decrease shipments of coal to C from D.

[2] Probably somewhat more than $5, because the better market for A's coal would be almost certain to affect its price somewhat. Nevertheless, an inelastic demand at C, coupled with the shipping of somewhat more of A's output to C, might well result in the consumers at C reaping most of the gain from the lower transportation rate on coal.

tion by the line *AC* may then force an equivalent reduction by the line *DC*. Since coal from *D* can no longer sell at *C* for $6 a ton, either the coal producers at *D* must accept substantially $1 less on the coal sent by them to *C*, namely, $2 instead of $3 per ton, or the railroad *DC* must reduce its transportation charge from $3 to about $2. But the coal producers at *D* will not be likely to accept a much lower price at the mine than $3 for coal shipped to *C*, so long as they can ship coal to *B* at a rate of $3 and sell it there for $6 a ton. Unless the market at *B* is decidedly limited (or the output of *D* too great to be mostly sold there) the line *DB* will be an effective competitor of the line *DC*, for the traffic from *D*, and if the price of coal at *C* falls, while that at *B* does not, the line *DC* must reduce its rate or lose much or most of its coal traffic. It would be a superficial statement to say merely that we have here a competition of the lines *AC* and *DC* for the market at *C*. For *DC* would not be under the same compulsion that it is under to lower rates, were it not for the line *DB* and the alternative market of *D* coal at *B*. *DC*'s competition is, therefore, equally a competition with the line *DB*, and may be classified with other cases of competition of directions. The coal produced at *D* has a choice of the directions *DC* and *DB* towards the two possible markets.

Suppose, third, that the benefit of the reduced rate made by *AC* goes about half to the producers at *A* and half to the consumers at *C*. Producers at *A* get $3.50 instead of $3 per ton at the mine; and consumers at *C* have to pay only $5.50 instead of $6 a ton. On this supposition, the line *DC* will have to reduce its rate to $2.50 to meet the lower price of coal at *C*. Other-

wise, *i.e.* if the loss from the lower price at *C* is thrown upon those producers at *D* who ship coal to *C*, no coal miners at *D* will send any of their product to *C*, but will send it, instead, to *B*. The possibility that the coal will go in this other direction, *i.e.* to *B*, compels the road *DC* to reduce its rate 50 cents. Also, the road *AB* will have to reduce its rate to $2.50. For producers at *A* receive a net return of $3.50 on coal sent to *C*. With coal selling at *B* for $6 and with a $3 rate to *B*, they would receive but $3 net on coal sent to *B*. They would, therefore, send little or no coal to *B* unless the road *AB* reduced its rate to about $2.50. If the benefit of *AC*'s reduction is divided about equally, then, between producers at *A* and consumers at *C*, the roads *DC* and *AB* may each be forced to make a reduction about half that made by *AC*. The rates charged by *DB* would not have to be lowered unless *DC* or *AB* made a further reduction, or unless the road *DB* desired more traffic than before.

The situation is no different if the original reduction on the line *AC* results, not from a desire to secure more traffic, but from an order of a government regulating body such as the Interstate Commerce Commission. In either case, the other road or roads affected must also make a reduction or lose traffic. It follows that regulation, directly, of the rates of one railroad may affect and frequently does affect, indirectly, the rates charged on a number of other railroads.

One other hypothetical illustration of competition of directions will be given. Let us suppose *A* and *C* to be connected with each other by the single line *AC* (figure 5); but suppose that the competition of two lines from *A* to *B* (or government regulation of their

rates) fixes a minimum price below which coal producers at *A* need not sell, and that the competition of two lines from *D* to *C* fixes a maximum price on coal for consumers at *C*. The line *AC* must make a rate low enough to give the producers at *A* as high a price as they can get by shipping to *B*, and to give the consumers at *C* as low a price on coal from *A* as they have to pay on coal

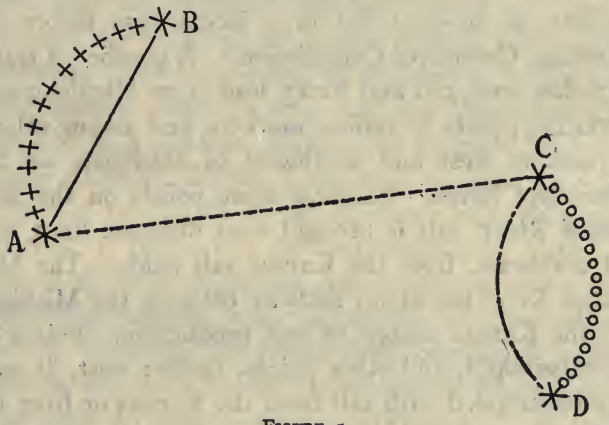

FIGURE 5

from *D*. Otherwise, the line *AC* will get no business and the coal produced at *A* will be carried to *B*. The line *AC* may be said to compete with the lines from *D* to *C*, for the market at *C;* and to compete with the lines from *A* to *B*, in order to carry coal produced at *A* over its line in the *direction* of *C*. It is situations of this general nature which justify the statement sometimes made by railroad men that they cannot make rates, but merely put in force rates made by commercial conditions. Nevertheless, the so-called commercial conditions which do determine these rates are likely to prove, on analysis, to be competitive conditions,

as here shown, and to be controllable in so far as competition can be controlled.

It is not difficult to find real cases where railroads are in one or more of such situations as have been described in this section, and are therefore subject to competition of directions. Consider, for instance, the position of lines leading from various Michigan and Kansas salt-producing points to different and the same markets, as brought out in a recent case before the Interstate Commerce Commission.[1] A number of transportation lines, rail and water, lead from Michigan salt-producing points to various markets, and among others, to markets west and southwest of Michigan, on the Mississippi River. To these same points on the Mississippi River, salt is brought over different lines, east and northeast, from the Kansas salt fields. The Mississippi River lies about midway between the Michigan and the Kansas centers of salt production. Points on the Mississippi, and other points, farther west, as well, may be supplied with salt from the Kansas or from the Michigan fields and, in fact, from different production centers in either of those states. On the other hand, many of the salt-producing centers have the option of shipping salt over any one of several transportation lines, either to several of the towns on the Mississippi River, or to other points in the same or different directions. Here, then, are all the conditions for competition of directions. Traffic from a given producing center, *e.g.* Detroit, Michigan, would meet like goods from another producing center, *e.g.* Hutchinson, Kansas, or some Michigan point other than Detroit, in a common

[1] Interstate Commerce Commission Reports, Vol. XXII, pp. 407–419, case decided February, 1912.

market, St. Louis. If the Wabash Railroad, leading from Detroit to St. Louis, refused to make reasonably low rates, it would find itself with less traffic or without traffic in salt. Rather than bear the burden of the higher rate, St. Louis dealers would secure salt from Hutchinson[1] or other Kansas points or from some Michigan point other than Detroit, *e.g.* from Manistee or Ludington, and, therefore, over other transportation lines than the Wabash. Rather than accept less for their salt by virtue of the higher railroad rate, the salt producers of Detroit, being so situated as to have this option, would prefer to ship their salt in another direction and to a different market, for example, by way of a lake route to Toledo, Cleveland, or Chicago. As a matter of fact, most of the Michigan salt, perhaps 80 per cent., is shipped in the first instance by water. In view of all these conditions, not to mention others more properly connected with competition of locations, the Wabash Railroad has found itself compelled to make rates on salt from Detroit, in reasonable relation to the rates made by these various competitors.

We have an illustration of what is probably, in part, competition of directions involving ocean carriers, in the export trade from the United States to South and East African ports. The rates charged are said to be maintained, as nearly as possible, on the same level as the rates from British and continental ports.[2] But

[1] If from Hutchinson, the Wabash might carry it part of the distance, but a much less distance than if from Detroit. But at St. Louis, the Wabash has particularly to fear competition from other Michigan sources of supply, not on its own line.

[2] Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, in Proceedings of the Committee on the Merchant Marine and Fisheries in the Investigation of Shipping Combinations, 1914, Vol. IV, p. 93.

why must such rates be made? Is it not largely because otherwise the goods which these vessels might carry from America would be shipped by producers in other directions and to different markets, either within or outside of the boundaries of the United States? In other words, is not one of the most important influences to be considered, the fact that the American producers *have an alternative* of which they will avail themselves if not granted reasonably satisfactory rates?

We may, indeed, broaden our conception of competition of directions, so as to have it include the making of rates to induce shipment of goods by producers, in a given direction and over given transportation lines, when otherwise some of these producers would find it more profitable to engage in the production of an entirely different class of goods, marketable only in another direction and over other lines. Thus, the ships leading from American ports to South and East African ports must charge on American goods, marketable in Africa, reasonable rates in relation to rates charged from Europe, not only because without such rates the American producers might seek other markets for those goods, but also because these producers might, to some extent, decide to engage in the production of other goods, not marketable in Africa. For the American producers to choose this latter alternative, no less than for them to choose the former, would mean diminished freight for the America-Africa lines. In the same way the making of low rates by a railroad to enable a manufacturing plant to market its produce and so "keep it in business," may often be, in the last analysis, competition of this sort. The persons operating the plant would doubtless, in any case, be engaged in *some* business, but the

alternative kind of production might not provide traffic for the particular railroad in question.[1]

§ 4

Competition of Locations

The fourth kind of competition is competition of locations. It is, by itself, perhaps less effective in protecting the public against monopoly rates than any of the other three kinds of competition, and certainly less effective than either of the first two kinds. To illus-

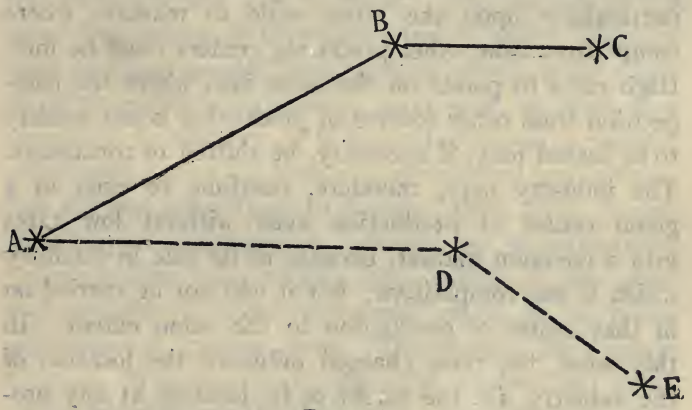

FIGURE 6

trate competition of locations, assume two railroad lines leading into a common terminal city, *A*, the one coming from *C* through *B*, and the other from *E* through *D*. (See figure 6.) Let us suppose that *B* is favorably located for iron and steel production, being in the center

[1] It is not improbable that railroads sometimes make rates to maintain traffic in a given kind of goods over their lines, when the nearest alternative to the persons producing those goods would be the production of other goods for shipment over the same railroad. That this is the nearest alternative may not be realized by the traffic officials of the railroad.

of a coal-producing district, and being able to get iron ore from *C*. The market is largely in and about *A*. The point *D* is no less favorably located for iron and steel manufacture, there being coal about *D* and iron ore about *E*. Iron and steel manufacturers will locate at *D* in preference to locating at *B*, provided they have better opportunity at *D*, because of low transportation rates, to reach the market *A* and secure a satisfactory profit. In general, the original and continued location of an industry in any center of production depends, in part, upon the transportation rates it can get, and particularly upon the rates made to markets where competitors from other producing centers must be met. High rates to points on the same line, where the competition from other sources of production is not equally to be feared may, if necessary, be shifted to consumers. The industry may, therefore, continue to exist in a given center of production even without low rates into a common market, because of its sale in territory which is less competitive; but it will not be carried on in that center of production to the same extent. In this sense, the rates charged influence the location of the industry, *i.e.* the extent of its location at any producing center. In our assumed case, the rate on the iron and steel products from *D* to *A* must be low enough, along with the rate on iron ore from *E* to *D*, and, perhaps, on other needed supplies, machinery, and food for workers, from both *A* and *E* into *D*, so that conditions as a whole will favor existence of the industry at *D* as well as at *B*. Otherwise, the line *EDA* may find itself with an unprofitably light traffic.

Yet this kind of competition is likely to be relatively unimportant in its effect on rates. If the manufacturers

at *D* have natural advantages over those at *B*, are nearer, for example, to the market and to a source of iron ore, the line serving *D* can charge considerably higher rates in proportion to distance, or perhaps rates absolutely higher, than the line serving *B*, and still keep the manufacturing industry in its territory. If, therefore, a railroad has, throughout any part of its territory, no competition to meet but the competition of locations, it is pretty certain that it can make some of its rates high, even rates to a common market, without corresponding loss of traffic. The loss would fall upon the owners of favorably situated land. Thus, to take another example, high rates on wheat, if the wheat is produced on exceptionally good land, or high rates compared to distance, if it is produced near a market, will simply reduce the profits of agricultural land owners, but will not cause them to abandon their fields, though they may, in consequence, cultivate not so intensively.

Competition of locations has existed in the past, and probably in some degree still exists, in the transportation of lumber from Minneapolis, Milwaukee, Chicago, Winona, La Crosse, Eau Claire, and other points in northern Michigan and along the Mississippi River, to Missouri River points, *e.g.* Kansas City, Omaha, Sioux City, etc., as consuming centers.[1] Many of these Missouri River cities were common markets served by more than one railroad. Each railroad desired that such a common market or markets should be supplied most largely from lumber production along its own lines. Rates made by any one such road, unduly high in relation to rates made by its rivals serving other centers of lumber production, meant that the

[1] Interstate Commerce Commission Reports, Vol. V, pp. 264–298.

production of lumber on its line would decrease or cease. Producers would prefer to engage in the business at a point where rates were not so high. Until an agreement was reached by the various roads, in 1884, fixing the relation of rates to be charged from various lumber centers, there was a considerable amount of keen competition among the railroads concerned. Where the rates of different transportation companies are so adjusted, each to each, reduction of the rates of one, by order of a government regulating commission, may indirectly force reduction of the rates of others.

Where the competition is a competition of directions or a competition of business locations, as well as where it is a competition of routes, it may sometimes be not undesirable that some goods should be carried over a longer instead of all being carried over a shorter route. For the longer route may sometimes have enough more intermediate traffic so that it can afford to take the longer distance traffic for lower rates than a shorter route can afford.[1]

§ 5

Competition against Potential Local Self-sufficiency

Besides competing with each other, transportation companies may be said to compete, also, in a sense, with local self-sufficiency. Especially when distances are great, reasonably low rates per mile are necessary, in order that different districts should specialize in different lines of activity and exchange their various products with each other. High transportation rates compel, in each district, a greater degree of self-sufficiency. Low rates promote commerce. To some extent,

[1] Cf. § 2 of this Chapter (II of Part III).

transportation companies doubtless bid for the business of transporting goods over long distances, thus taking part in the competition of shippers with local producers in the territory to which the goods are sent.

To illustrate, suppose two sections of the country, *A* and *B*, 1000 miles apart but joined by the railroad *AB*. (See figure 7.) The general level of prosperity

FIGURE 7

in other industries at *A* may be such that no one will mine coal there (of which there are deposits) for less than $3 a ton. In *B*, on the other hand, conditions are such that coal cannot be produced and sold locally for less than $5 a ton and yield as good a return on labor and investment as other local industries. Unless the railroad *AB* makes a rate of $2 a ton or less for carrying coal 1000 miles, *B* will produce its own coal, *A* will probably engage more largely in the production of goods for local use, and the railroad *AB* will not get the coal traffic.

Such competition with local self-sufficiency has been of recent importance in Indiana. In the northern part of that state, many wagon roads have been in process of construction. In the building of these roads, there has frequently been the alternative of using gravel from gravel pits within a few miles of the roads to be made, or crushed stone from various quarries near Chicago, Toledo, and Milwaukee. The railroads have made low rates on the crushed stone,[1] in order, by enabling quarry owners to ship their product, to get traffic which otherwise could not have been had.

[1] McPherson, *Railroad Freight Rates*, p. 142.

§ 6

Two Senses of "What the Traffic Will Bear"

The classic and usual statement with regard to rates independently made by railroads, *i.e.* made without direction or interference from government, is that these rates are made on the basis of "what the traffic will bear."[1] This statement, properly understood, is correct, but its meaning requires some explanation. To say that a railroad leading from the Pennsylvania coal fields to New York City will charge, on coal shipped to New York, what the traffic will bear, does not mean that if higher rates are charged, the railroad will not get any traffic at all. Neither does it mean that at lower rates the railroad would not get more traffic. It means, simply, that the rates charged, when there is no legal regulation and when the interests of the railroad are chiefly or solely considered, will always be the rates yielding the largest net returns on capital invested.[2] Higher rates will so decrease traffic that even the larger return per unit business will be a smaller net return on capital. Lower rates will usually increase traffic, but will not increase it enough to compensate for the smaller return per unit business and the larger expense of carrying more goods. On any special kind or class of traffic, therefore, the rates charged by a given railroad are those yielding it the greatest profit; or, in this sense of the expression, the rates charged are what the traffic will bear.

But though monopolistic as well as competing transpor-

[1] Hadley, *Railroad Transportation*, New York (Putnam), 1885, p. 111.

[2] Far-sighted management may of course consider the future as well as the present.

tation companies base their rates on what the traffic will bear, the conditions determining monopolistic rates are markedly different from those fixing competitive rates. The rates which monopolized traffic will bear are usually higher than the rates which competitive traffic will bear. A transportation company having a monopoly is concerned only with the effect of its rates on the total volume of traffic within its territory, for its own traffic is synonymous with this total traffic. Its only fear is that its rates may be so high as to destroy transportation business. Such a company's rates need only be *what the traffic will bear without being destroyed* in whole or in part.

A transportation company having competitors, however, is interested not only in the effect its rates may have on the total transportation business of the territory it serves, but also, and usually to a much greater extent, in the effect its rates may have on its own business compared with that of its rivals. A slight change in its rates will probably make very little difference in the total amount of goods carried in the given territory, even if its rivals make exactly similar changes. But a slight change in its rates, if its rivals do not make similar changes, will probably affect very greatly the amount of business done by the particular company making the change. A slightly higher rate will result in diverting much or most of its business to its rivals. A slightly lower rate will result in its getting business away from them. We may say, therefore, that the rates charged by a transportation company subject to competition will be *what the traffic will bear without being diverted.*

What the traffic will bear without being destroyed, is generally more than what the traffic will bear without

being diverted. Therefore, monopoly rates are generally higher in proportion to distance or to service rendered, than competitive rates.[1] It is commonly deemed essential to regulate monopoly rates by government for the protection of the general public and for the furtherance of commerce. Unregulated monopoly rates, though they will not be made, with intention, so high as to decrease net profits, may, nevertheless, be made so high that the volume of commerce becomes smaller than, for the greatest national wealth, it ought to be. A monopolistic transportation company can well afford to charge rates, for carrying a given kind of goods between two points, 20 per cent. above a competitive level, if its doing so makes its traffic less than it otherwise would be by only 10 per cent. Yet the monopoly rates, in thus making traffic less, even by but 10 per cent., would be preventing commerce which ought, for the general welfare, to take place.

§ 7

Summary

Competition of transportation companies with each other we have seen to be of four kinds: competition of different companies over the same route, competition of routes, competition of directions, and competition of locations. In addition, a transportation company may be said to compete, in a sense, with potential local self-sufficiency. Competition of different companies over the same route applies particularly to competition on open

[1] Cf. Carver, *The Distribution of Wealth*, New York (Macmillan), 1904, p. 48. See also article by the present writer in the *Quarterly Journal of Economics*, August, 1908, entitled Competitive and Monopolistic Price Making.

waterways. In the case of railroads, the right of way of one company is generally used only by that company. Competition of routes applies both to railways and to waterways. The other kinds of competition are of more importance in relation to railways, though not inconceivable in the case of water transportation.

When two or more routes join two given points, the usual rule is that transportation over the shortest or the most level route is the most economical, although it does not necessarily follow that the beneficial stimulus of competition and its protection of the public against monopoly should be sacrificed to enforce the carriage of goods by the shortest available line. On the other hand, there are cases where a longer line is a more economical one for the carriage of goods between two given points, than a shorter one. In the first place, the traffic may be in excess of the carrying capacity of the more direct line, and it may be better to use the longer line, even though the profit is small, than to invest additional capital in railroad plant. In the second place, it may be preferable to build a roundabout rather than a direct line (or than more tracks on a direct line already built) to carry traffic unprovided for between two points if the roundabout line taps enough more intermediate traffic than the direct line (or than the new trackage on the direct line could add), so that the longer distance traffic, having to pay less of the general expenses and profits, can be carried by the roundabout line more cheaply. In the third place, if facilities between two points are in excess of traffic, and one line has to be abandoned, it may be preferable to abandon a shorter line rather than a longer, provided the longer line has much more of intermediate traffic which helps

it to be profitable and enables it to carry goods between the two given points for a relatively low rate.

Competition of directions exists when each of two (or more) lines is compelled to make rates from a given center of production, based on the rates made by a rival leading in a different direction and to a different market. That this competition may be effective, there must be other conditions — in our illustrations other transportation lines — influencing prices in both markets or in the source of production and at least one of the markets.

Competition of locations exists when transportation lines endeavor to make conditions favorable for various industries, in territories which they serve, by reasonable rates on raw materials, finished products, etc., in order that the industries may develop along their lines instead of elsewhere. These last two kinds of competition have doubtless some importance, but are less effective than the first and second kinds.

Monopoly rates are usually higher than competitive rates, because the former are based on what traffic will bear without being destroyed, while the latter are based on what traffic will bear without being diverted; and because a rise in a transportation company's rates which would have almost no effect in decreasing the total amount of traffic would, if the company has competitors, cause most of its business to be diverted to them. Unregulated monopoly rates may prevent commerce which is economically desirable.

CHAPTER III

Transportation Monopoly

§ 1

Monopoly of Rail Transportation

Railroads are usually, if not always, partial monopolies. However much the kinds of competition we have described may affect rates on traffic to and from large competitive centers, there is on nearly every railroad intermediate traffic not correspondingly subject to competitive influence.

Even as to traffic between competitive points, competition has often been checked by some form of rate agreement among the rival railroad companies. Experience early showed that there was sometimes great temptation for one or more of the companies to depart from the agreed rates, not unusually by secret arrangement with a favored shipper or shippers, in order to get greater traffic at the expense of the other parties to the agreement. Hence various pooling devices were adopted. These pooling devices involved [1] either a division of the business in some definite proportions among the roads concerned, or a division of the earnings from the business. When the latter plan was determined upon, each road was entitled to carry all the freight it could get, but must

[1] See Hadley, *Railroad Transportation*, New York (Putnam), 1885, p. 74; or Johnson, *American Railway Transportation*, 2d revised edition, New York (Appleton), 1909, pp. 224, 225.

divide any surplus profits so made, with the other parties to the pool. To enforce this provision it was frequently required of each company that it keep a considerable sum on deposit in a common treasury, this sum to be forfeited in case of violation of agreement.[1]

The Interstate Commerce Act of 1887 made pooling by railroads illegal, and the kinds of arrangement above described had to be dropped. For a time the railroads of the United States attempted to make and enforce rate agreements by means of their traffic associations, even though pooling was forbidden. The Joint Traffic Association of 1896 made departure from its recommended rates punishable by fines. But in the meanwhile the Sherman Anti-trust Act had been passed in 1890, and this act was so interpreted by the Supreme Court in the Trans-Missouri Freight Association case (1897) [2] and in the Joint Traffic Association case (1898) [3] as to forbid any agreement for the maintenance of rates. The same law was interpreted by the Supreme Court in the Northern Securities case,[4] in 1904, to forbid the holding of the stock of two potentially competing roads by a holding company. And in 1912 this tribunal, in a case involving the possession of stock by the Union Pacific in the Southern Pacific Railroad,[5] decided that it was illegal for any railroad company to hold a controlling interest (even less than a majority of stock, if substantial control was thus secured) in what might otherwise be a competing railroad. By the terms of the new Clayton Act,[6] interholding of stock and the holding of stock by so-called "holding" companies is prohibited,

[1] Johnson, *American Railway Transportation*, p. 240.
[2] 166 U. S., 290. [3] 171 U. S., 505. [4] 193 U. S., 197.
[5] 226 U. S., 61. [6] October, 1914.

where the effect may be a substantial lessening of competition. But it is doubtful whether this prohibition really adds much to the Anti-trust Law of 1890 as that law has been interpreted by the Supreme Court. Representatives of different systems of course meet in the conferences of the various traffic associations to discuss traffic conditions, and these meetings bring about informal understandings regarding rates.[1] But any formal agreement to maintain rates is illegal.

It can hardly be said that complete monopoly is inevitable in railway transportation, on the ground that competition is necessarily ruinous. Competition is not necessarily ruinous. To begin with, as we have already seen, there is on almost every railroad intermediate traffic for which there is no competition. Furthermore, even if all traffic were strictly competitive, competition would not be likely to reduce average profits below a fair return on capital, unless transportation facilities were in excess of traffic requirements. When the traffic available at reasonable rates taxes the plants of all the railroads between any two points, no one of the roads needs to reduce its rates to an unprofitable level even if its rivals choose to reduce theirs. For, by hypothesis, its rivals cannot carry all the traffic, and there will still be business for the non-reducing road. Nor can we assume that the reducing companies will care to enlarge their plants so as to carry larger traffic, unless the rates which can be charged are profitable. When additions to plant are made, at least if they are made by companies already in the field rather than by the building of rival roads, these additions may be gradual and not greater than gradually increasing

[1] Johnson, *American Railway Transportation*, p. 248.

business requires. Additional and larger cars, additional switches to permit more frequent train service, perhaps an additional track where traffic is most dense, will not of necessity so alter the relation between facilities and requirements as to bring about cutthroat competition.

If, however, a new railroad is constructed when existing roads are adequate, or if temporary decline of business, as during an industrial depression or during a dull season, makes facilities, for the time being, in excess of traffic needs, unchecked competition may reduce rates below a profitable level. Each road will take traffic which yields little towards general expenses and fixed charges, rather than not get such traffic. Hoping to secure at the expense of their rivals, by charging very low rates, the large amount of traffic necessary to make such rates cover general and other expenses, the managers of each road may succeed only in reducing their road to bankruptcy.[1] For if every other road concerned reduces rates in the same degree, the reductions by the one road will not probably much increase its business so as to make the low rates profitable. Nevertheless, the excessive rate reductions result, in large part, from the existence of more transportation facilities than can be fully utilized. They are not the invariable and inevitable consequences of all railroad competition.

It has often been argued that such cutthroat competition, and the discrimination in favor of competitive traffic to which it leads, can be most effectively prevented by removing the prohibition against rate agreements, even, perhaps, making them legally enforcible, and by giving legal recognition to pooling.[2] Such a

[1] Cf. Hadley, *Railroad Transportation*, pp. 70–74.
[2] Cf. Chapter IV (of Part III), § 2.

change in governmental policy might not be unwise — would, in fact, be highly desirable — if all permitted agreements were required to receive the sanction of the Interstate Commerce Commission. But it must be remembered, first, that the era of speculative railroad building in the United States has probably passed; and second, that the Elkins Law (of 1903), by prohibiting departures from published rates, and the Interstate Commerce Law (as revised in 1906), by insisting that no rate changes shall be made without 30 days' notice, have operated to prevent the old-time competition with its accompaniment of demoralized rates. Hence, the importance of permitting agreements is less than formerly, though there are probably, still, occasions when recognized agreements would be beneficial.

So far as there is monopoly of rail transportation, from any cause, the American public and its trade interests are protected by the rate-regulating power of the Interstate Commerce Commission and the various state commissions. By the amendments of 1906 and 1910 to the Interstate Commerce Law, the Interstate Commerce Commission was given the power to fix maximum charges for any (interstate) traffic after investigation, and to suspend proposed rate advances for a total period not to exceed 10 months,[1] pending examination as to the justification of such advances.

§ 2

Agreements between Navigation Companies

Transportation on natural waterways, particularly on the ocean, is, it would appear, less likely to be con-

[1] More precisely 120 days plus, if necessary, a further period of 6 months.

trolled by monopoly, is more subject at all terminals (or ports) to competition, than is transportation by rail. The principal reason for this difference is the fact that the way or route costs nothing and is open to all companies on equal terms, while, in the case of railways, the way or route is expensive and can be used only by the company which owns it. Railway traffic between two points is often subject to monopoly control because there is, between those points, only traffic enough to justify a single line. Another company, choosing to compete for this traffic, would have to construct an entire new roadway between the points in question. The investment of the second company might have to be as great as that of the first, in order for it to compete at all. Its investment would almost certainly be a considerable fraction of that of the first. So large an addition to the total railway plant connecting two places would be likely to mean no adequate return on the new capital, and it might mean, since general expenses run on even when traffic is small, no return whatever. Under these circumstances a new line would seldom be constructed. There would be no competition. There would only be one route or way. One company would own it and no other could use it. The owning company would have the situation entirely in its own hands and could charge what it desired, subject only to legal limitations and the less direct kinds of competition.[1]

In the case of water transportation, however, the situation is different. In order for a competition to be started against a company already engaged in carrying goods between two points, it is not necessary that another company shall be found, willing and able to

[1] See previous Chapter (II of Part III), §§ 3, 4, 5.

provide capital enough for the construction of perhaps hundreds of miles of roadbed and track, or willing and able to duplicate or nearly duplicate the plant of its already present rival. Though the earlier company may have a fleet of a hundred vessels, yet if the new company can build one or two vessels, it is at once in a position to compete for whatever part of the trade it can handle. In a sense, a new company can compete by building for this particular trade a fraction of a vessel, that is, it can build a vessel to engage partly in other trade and partly in this particular competitive trade. A tramp vessel, going into all oceans, now here and now there, and seeking traffic in cargo lots, may be built and turned, in part, to the trade previously monopolized. Whenever the rates of the regular-line steamers, those sailing on schedule, exceed the charter rate for tramp steamers, large shippers are likely to patronize the tramp vessels.[1] Even small shippers, who cannot alone accumulate sufficient cargoes to justify the chartering of vessels, are enabled to utilize tramp vessels through the intermediation of charter brokers who accumulate the cargoes of numbers of merchants and who charter vessels to carry these cargoes.[2]

Nevertheless, traffic agreements and other devices to maintain monopoly or partial monopoly are common, and appear to be not altogether ineffective, in water transportation. "Practically all the well-known lines connecting North Atlantic American ports with those of the United Kingdom, North Europe, and the Mediter-

[1] Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, in Proceedings of the Committee on the Merchant Marine and Fisheries in the Investigation of Shipping Combinations, Vol. IV, 1914, p. 299.

[2] *Ibid.*

ranean, have been parties to numerous freight agreements covering, in one way or another, nearly every sphere of the American-European trade." [1] It appears that "over 40 regular trans-Atlantic lines have been parties in their respective trades to at least 20 agreements involving the freight traffic, and that the important lines have been members of at least four main freight conferences." [2]

In some instances the traffic is indirectly apportioned by an allotment of the ports of sailing. Thus, the Hamburg-American and the North German Lloyd companies have had an agreement by which Hamburg is reserved for the former and Bremen for the latter as regards sailings from all American ports north of Savannah.[3] In the American-Asiatic trade not only have there been agreements as to rates both eastward and westward, but there have also been arrangements to the effect that the net freights earned should be pooled.[4] Sometimes, also, there has been an agreed limit to the number of sailings to be made by each of several lines, and occasionally there has been a limitation placed upon the amount of freight which some line or lines may carry.[5]

Control of transportation by so-called conference lines is furthered by the deferred rebate system. Under this system it is arranged that shippers who agree to use only the vessels of the conference lines in a given trade or

[1] Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, in Proceedings of the Committee on the Merchant Marine and Fisheries in the Investigation of Shipping Combinations, Vol. IV, 1914, p. 59. This report, referred to here and in the following pages, was made just before the outbreak of the present war, which has, as is well known, tended to disorganize conditions of ocean commerce, but not, of course, by rate *reductions*. Agreements are not now necessary even to keep rates far above their normal level. Some lines which were parties to agreements are not, at present, carrying on business.

[2] *Ibid.*

[3] *Ibid.*, p. 71.

[4] *Ibid.*, p. 117.

[5] *Ibid.*, p. 285.

trades, shall receive a rebate of some 5 or 10 per cent. on their freight bills, which rebate is payable to them perhaps six months after the end of the period for which it is computed. Any shipper who, at any time before the period of deferment has expired, ships goods by other than the conference lines, loses the benefit of the rebate.[1] The deferred rebate system is applied, for example, in the westbound trade from the Far East through the Suez canal to the United States [2] and in the trade between the United States and South America.[3]

It is sometimes claimed that this system is advantageous to shippers, on the ground that, by guaranteeing large and regular business to the favored navigation companies, it enables them to give efficient, regular, and frequent service.[4] But that the system is unnecessary as a means of securing good and regular service seems to be indicated by the fact that many conferences do not employ it.[5] And it is obvious that such a system may be, as it in fact has been, so used as to make effective competition by outside lines very difficult and at times impossible, and thus to make shippers absolutely dependent upon the conference lines.[6] For these lines, having generally a considerable number of vessels among them, can so arrange the order of sailings for the different lines as to give a frequent service. An independent line, endeavoring to compete with the others, cannot usually give, alone, an equally frequent service. Many shippers will therefore find themselves compelled to patronize one or more of the conference lines a part of the time [7] even though the conference rates are higher, and may

[1] *Ibid.*, p. 287.
[2] *Ibid.*, p. 118.
[3] *Ibid.*, p. 161.
[4] *Ibid.*, pp. 161, 162.
[5] *Ibid.*, p. 307.
[6] *Ibid.*, pp. 163–165.
[7] *Ibid.*, p. 165.

conclude to patronize these lines all the time and so receive the deferred rebates. Shippers may also fear that if they patronize a competing line which cannot alone give them all the sailings required, the other lines, on which they are in part dependent, will refuse absolutely to carry any of their goods. An illustration is afforded by the experience of the Lloyd Braziliero line, an independent line operating between Brazil and the United States. This line, though charging rates of from 26 to 32 cents per bag on coffee as compared to conference rates of 45 to 50 cents, was able to carry the coffee of but one important shipper and only a part of that.[1] This company, Arbuckle Bros., was refused the service of the conference lines and has had to charter vessels for a large part of its shipments.[2] It now appears, however, that such refusal to serve shippers may constitute restraint of trade and be illegal.[3]

It can hardly be said that business obtained by navigation companies in this way is fairly earned. Business so obtained is not the reward of superior efficiency shown in better service or lower rates. It is rather the result of combined efforts to shut out possible competition; it is the result of what is, in effect, a conspiracy against freedom of commerce and against the general well-being.

Another method of preventing long-continued competition is by the use of so-called fighting ships, *i.e.* by

[1] Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, in Proceedings of the Committee on the Merchant Marine and Fisheries in the Investigation of Shipping Combinations, Vol. IV, 1914, pp. 165, 166.

[2] *Ibid.*, p. 167.

[3] See *United States* v. *Prince Line, Limited, et al.*, 220 Fed. Rep., 230, in which the court granted an injunction against refusal to carry for any shipper at regular rates.

collective competition against a single outside line. The conference lines buy or set aside certain ships for this purpose. These vessels underbid the rates of the outside line even though to do so they must carry at a loss, and this loss is borne jointly by all the conference lines.[1] The would-be competitor, however efficient its service and however low its rates, may thus be driven out of the trade. The conference lines maintain their monopoly, not by superior service but by making rival service impossible.

The assumption has been frequently made, in the past, that water transportation is naturally competitive and so needs little or no regulation. There has been, until recently, comparatively little attempt to investigate combinations and agreements among water carriers, or to interfere with them by means of prosecutions under the Anti-trust Law. Nevertheless, it would appear that the Anti-trust Law applies to such combinations and agreements no less than to similar arrangements between railroads. A combination of shipowners, which fixes rates of transportation, and which discriminates against shippers using other lines, so maintaining or endeavoring to maintain a monopoly, has been declared to be illegal.[2] A combination or agreement of water carriers for the control of transportation to and from the United States is unlawful and void regardless of where it is made or where it is to be performed or by what vessels it is to be carried out.[3] Furthermore, the

[1] *Ibid.*, p. 46 and pp. 289, 290.

[2] *Thomsen et al.* v. *Union Castle Mail S. S. Co. et al.*, 92 C. C. A., 315.

[3] *United States* v. *Hamburg-Amerikanische Packet-Fahrt-Actien-Gesellschaft et al.*, 200 Fed. Rep., 806.

The Federal government recently brought suit, under the Sherman Law, against the steamship lines of the North Atlantic Conference. The government alleged that there was unlawful combination for the purpose of apportioning

Interstate Commerce Law applies not only to railroad rates but also to rates charged for transportation "partly by railroad and partly by water when both are used under a common control, management, or arrangement for a continuous carriage or shipment," though this jurisdiction does not extend to lines operating between the United States and a non-adjacent foreign country, and the Interstate Commerce Commission is empowered, by the amendment of 1910, to establish through routes, joint classifications, and joint rates and to prescribe the division of such rates among connecting carriers, not only

traffic and fixing rates and that there was a use of "fighting ships" for breaking down competition. An injunction was asked for, prohibiting the entrance or clearance at any American port, of any ship belonging to any line in the conference. The court granted an injunction against the use of "fighting ships" but refused to regard the conference arrangements as otherwise illegal, contending that the combination was a necessary means of preventing cutthroat competition ending in monopoly of the strongest or in complete consolidation, and that, therefore, the combination did not *unreasonably* interfere with trade. See *United States* v. *Hamburg-American S. S. Line et al.*, 216 Fed. Rep., 971. This decision was unsatisfactory to the government, and the case was immediately appealed to the Supreme Court. See *New York World*, Oct. 14, 1914. The comment may perhaps be fairly made, on this decision of a district court, that to permit rate agreements, in part because of the fear of complete consolidation, implies the belief that complete consolidation cannot itself be prevented. In any case, if rate agreements of some kind are believed to be reasonable and a necessary means of avoiding cutthroat competition, it may plausibly be contended that the agreed rates should be subject to the supervision of a government regulating body.

A more recent decision of the same district court dismisses the government's Sherman Anti-trust Act suit against the Prince line and others comprising the so-called Brazilian Steamship Conference, and against lines comprising the Far Eastern Steamship Conference. (See 220 Fed. Rep., 230.) Curiously enough, the court found nothing inconsistent with law either in the rate agreements made or in the use of deferred rebates. It is difficult to believe that the Supreme Court will take a like position. Its interpretation of the Sherman law "with reason" seems never to have led it so far as this in the defense of monopoly. On the contrary, it has shown itself, by a long line of decisions, hostile to combinations having monopoly power. It should be said, however, that the district court granted an injunction against refusal to serve any shipper at the regular rates, and intimated that an injunction would have been granted against the use of "fighting ships," had evidence of such use been presented.

when all are rail carriers but also when one is a carrier by water, provided that such through routes, joint classifications, and joint rates have not been voluntarily established. Finally, the Panama Canal Act of 1912 authorizes the Interstate Commerce Commission to establish physical connection between rail and water lines, when reasonably practicable and justifiable, by directing either line or both to construct necessary tracks; "to establish through routes and maximum joint rates over such rail and water lines, and to determine all the terms and conditions under which such lines shall be operated in the handling of the traffic embraced"; and "to establish maximum proportional rates by rail to and from the ports to which the traffic is brought, or from which it is taken by the water carrier, and to determine to what traffic and in connection with what vessels and upon what terms and conditions such rates will apply." There is, however, no law regulating either the rates charged or the competitive practices followed when the transportation is wholly by water. Specific prohibition of the use of "fighting ships" and of deferred rebates, and prohibition of any unreasonable discrimination would be desirable.[1] Effective regulation would probably involve, also, an extension of the jurisdiction of the Interstate Commerce Commission to include transportation wholly by water.

§ 3

Other Causes of Monopoly in Water Transportation

Monopoly control of commerce has also been furthered by "exclusive" and, though to a less extent, by "prefer-

[1] Cf. Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade,* Vol. IV, p. 421.

ential" agreements between railway and steamship companies. These agreements provide that the railroad company and the steamship line involved shall each furnish freight to the other and that, so far as possible, all through freight from either line shall be delivered to the other line for carriage to destination.[1] Formerly, many of the railroads made contracts with steamship lines, which bound the railroads to ship goods to certain ports, on through bills of lading, only by the steamship lines with which the contracts were made, regardless of the preferences of shippers. These were "exclusive" contracts. But the Interstate Commerce Commission, acting under its general authority to forbid discriminating rates and practices, has recently declared this kind of arrangement to be an attempt to compel shippers to employ a particular water line, and an illegal discrimination against shippers.[2] It was declared to be illegal for a railroad to give the use of its facilities exclusively to one steamship line, unless the railroad would undertake to deliver to other ship lines at another wharf for the same charge. The railroad may have a preferred steamship connection so long as such preference does not involve any discrimination against traffic routed via the railroad over a non-preferred boat line. "Exclusive" agreements have, therefore, largely given place to "preferential" ones.[3]

Control of wharf space by conference lines, or railroads, or both, is sometimes a barrier to the freest commerce

[1] Cf. Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, Vol. IV, p. 292.

[2] See Interstate Commerce Commission Reports, XXIII, pp. 417–428.

[3] Huebner, Report on *Steamship Agreements and Affiliations*, p. 240.

via a given port. Water frontage is frequently owned to a large extent by railroad interests. Thus, the Lake front in Chicago, opposite the business section, is occupied by the Illinois Central Railroad; and important parts of the water front in Buffalo, N. Y., Cleveland, O., Norfolk, Va., Mobile, Ala., and Oakland, Cal., are controlled by railroads.[1] In order that a port should fulfill well its commercial functions, it is important that rail and water lines should come close together, and if they are to do so, railroads must usually have some frontage; but it is claimed that they have more than they need for this purpose and that their holdings are a barrier in the way of water transportation which might else be profitable. "In many cases they hold large tracts of undeveloped frontage which they refuse to sell or lease, and which are needed for the construction of public docks."[2] Where railroads thus maintain monopoly of traffic which would otherwise be shared with competing navigation companies, such monopoly must be assumed to be inimical to the development of commerce. At Pittsburgh, St. Louis, and other river points, the railroads hold miles of frontage beyond what is required for their own terminal facilities, which might otherwise, it is urged, be acquired and used by water lines.[3] At some ocean ports, the combined holdings of railroad and large steamship companies have been such that it has been difficult for tramp vessels or independent boat lines to obtain landing privileges.[4] Where, as in the case of the port of New

[1] Report of the Commissioner of Corporations on *Transportation by Water in the United States*, Part I, p. 155.

[2] Final Report of the National Waterways Commission, 1912, p. 21.

[3] Report of the Commissioner of Corporations on *Transportation by Water in the United States*, Part I, 1909, p. 155.

[4] *Ibid.*, p. 156.

Orleans,[1] there is extensive public ownership and public control of wharves, it is possible to assure wharf space on fair terms to all vessels. Attention has elsewhere [2] been called to the British system of public harbor trusts and its advantage for harbor management. Where a harbor is controlled by such a trust, it is easily possible to avoid exclusion of any vessels.

Another condition that has tended towards transportation monopoly has been the large control of water carriers themselves, by American railroads.[3] To a very considerable extent there has been railroad ownership of vessels engaged in the Atlantic Coast trade, the Gulf trade, and the Great Lakes trade, vessels which might otherwise be competitors of railroads for the traffic between American ports. In very many cases, the only regular line of vessels carrying freight between two or more ports has been controlled by a railroad company or by a shipping consolidation [4] (frequently a holding company). It is now provided, however, by the Panama Canal Act of 1912, that no railroad or other common carrier subject to the Interstate Commerce Act shall own, lease, operate, control, or have any interest whatsoever (by stock ownership, holding company, stockholders or directors in common, or otherwise), in any common carrier by water, which does or may compete with it. The Interstate Commerce Commission has jurisdiction to decide, in each case, as to the fact of possible competition.

[1] Report of the Commissioner of Corporations on *Transportation by Water in the United States*, Part III, pp. 70–102, gives a full discussion of the organization of this port.

[2] Part II, Chapter VIII, § 5.

[3] Report of the Commissioner of Corporations on *Transportation by Water in the United States*, Part IV, on *Control of Water Carriers by Railroads and Shipping Consolidations*, 1912, Chapters I and II.

[4] *Ibid.*, p. 13.

§ 4

The Function of Government in Relation to Transportation Monopoly

Monopoly in transportation may be reached by a variety of methods and is frequently secured, as we have seen, by methods which do not at all signify superior service or lower rates. However secured and maintained, there is danger that such monopoly will be so used as to decrease commerce and lessen the general welfare. Government should prevent, so far as possible, the attainment of monopoly by unfair practices or by conspiracy, or under any circumstances which make it detrimental to the general welfare; and, where monopoly appears, government should protect commerce against possible extortion. Besides establishing and maintaining an adequate money and banking mechanism, government may be said to have at least two important functions with regard to commerce, a negative and a positive one. The negative function of government is to avoid, itself, interfering with the normal course of trade by tariff restrictions, bounties, navigation acts, or other special privileges. The positive function of government is to prevent interference with trade and diversion of trade out of its natural channels, by monopolistic or discriminating transportation rates. On the other hand, when the principle of rate regulation by government is thoroughly established, care must be taken not to require rates so low as to discourage the investment of capital in needed transportation facilities, since inadequate facilities, no less than high rates, may prevent the fullest profitable development of trade.

Properly to regulate the rates of monopolistic trans-

portation companies is a task of considerable difficulty, yet a task which, through commissions or otherwise, government must apparently perform. What standards of reasonableness should be applied when such regulation is undertaken? Provided transportation facilities, *e.g.* a railroad, are needed for the carriage of goods between certain points, provided the route is wisely chosen and the management reasonably good, the rates allowed should yield enough to pay all expenses, to pay a reasonable profit on the cost of construction, or more nearly, perhaps, what the cost of construction would now [1] be, if the road had to be built again, and to pay, also, a reasonable rent on the land used for right of way and stations.[2] Public regulation must allow reasonable profit to such a company, else investors will prefer to devote their capital to other uses. And unless the profit allowed, above interest on the construction cost, amounts to as great a surplus as the necessary land space would yield in some other use, the application of land to the requirements of transportation will be discouraged. If increased population adds to the returns which the land would yield in some other use, it should ordinarily add to the returns which the same land yields when devoted to the transportation use. These larger returns will usually be yielded without the necessity of rate increases or, in some cases, even though rates fall, since growth of population tends to increase traffic. But to force rate reduction to such a point as to prevent the

[1] If values change, this cost of duplication should be emphasized in so far as it would have influence in purely competitive businesses of large plants. In such a business, the existing prices are dependent largely on past cost of construction, for if that was very great, there will be fewer plants now in operation. But a decrease in the necessary cost of construction is likely to encourage the building of new plants, whose competition will soon influence prices.

[2] Cf. Chapter I (of Part III), § 3.

realization of any gain, on the theory that the gain is unearned, is to discriminate unduly against the owners of land used for the purpose of transportation. It is not intended to argue that increases in the rental value of land should go to private individuals or to corporations rather than to the public. To tax these increases heavily *wherever they occur* may be a desirable economic policy. Where this policy is followed, the owners of any land will be as careful as now to use it in the way that brings the largest gain, since the tax, being based on the natural and situation advantages of the land, will be the same regardless of how these owners choose to use it.[1] But to rule that if the land is used for most purposes, such a gain in value will be allowed to accrue to its owners; while if it is used for one particular purpose, this gain shall go to the public, is to encourage the other uses and discourage the one use.

On the other hand, government is not under obligation so to regulate rates as to protect a transportation company even in the enjoyment of profits only equal to the average in competitive business, when this company has been mismanaged.[2] Companies engaged in strictly competitive business do not enjoy average profits unless managed with average ability. Nor is a railroad between two points, which has been laid out over an unnecessarily devious, and, therefore, a relatively unprofitable, route, entitled to charge, in consequence, higher rates on traffic between those points, so as to make

[1] If the tax were made higher just because the owner chose to make a more profitable use of the land than others had seen the possibility of, the best use of land would be discouraged. Cf. Marshall, *Principles of Economics*, 6th edition, London (Macmillan), 1910, p. 434.

[2] See views of the Interstate Commerce Commission, as set forth in the "Five Per Cent case," Interstate Commerce Commission Reports, Vol. XXXI, pp. 358, 359 (pp. 351–454 for entire case).

as great profits, at the expense of the public, as if it had been wisely located.[1] The same conclusion may of course follow if the route chosen can provide little intermediate traffic, and if a more profitable route, providing more intermediate traffic, was available. In competitive business, owners are obliged to suffer diminution of profits when mistakes are made. Where there is real competition between several railroad companies, the unwisely located line finds itself at a serious disadvantage. Any combination or agreement which should insure to such a line a profit as great as it could have expected if well located would be inimical to public welfare. Of course a railroad built where traffic is light, provided it was built so as to connect, by the best available route, the principal points served, is fairly entitled to charge the high rates necessary to secure a reasonable profit.

Competition stimulates to good management. Public regulation of a business which is, by necessity, a partial monopoly, perhaps may not, at best, stimulate efficiency as much. But unless regulation is so applied as to make profits depend in part on good management, such management is likely to be had to a decreasing degree, rates are likely to be high, and commerce to be retarded. Yet it would not be fair to require, as a condition precedent to allowing reasonable profits, a standard of management far superior to that common in other industries. Reasonably good management should bring reasonably good returns, and exceptional management should bring returns above the average. The Interstate Commerce

[1] Cf. views of the Interstate Commerce Commission, as set forth in the "Five Per Cent case," Interstate Commerce Commission Reports, Vol. XXXI, p. 359.

Commission has said:[1] "A premium must be put upon efficiency in the operation of the American railroad. Rates cannot be increased with each new demand of labor, or because of wasteful, corrupt, or indifferent management. Nor should rates be reduced with each succeeding improvement in method. Society should not take from the wisely managed railroad the benefits which flow from the foresight, skill, and planned coöperation of its working force. We may ruin our railroads by permitting them to impose each new burden of obligation upon the shipper. And we can make no less sure of their economic destruction by taking from them what is theirs by right of efficiency of operation — the elimination of false motion, of unneeded effort, and the conservation of labor and materials. The standard of rates must be so high that the needed carrier which serves its public with honesty and reasonable effort may live. And yet rates should be still so much below the *possible* maximum as to give high and exceptional reward to the especially capable management, the well-coördinated force and plant. This is the ideal, unrealizable perhaps, but it points the way."

In the fixing of rates, the par value of stocks and bonds of a company may be a consideration of importance as indicating original investment. But where stock watering has been attempted, par value has no significance. Market value of securities cannot be regarded as a satisfactory standard for rate fixing, since market value depends mainly on profits, which in turn depend chiefly on rates. Even if the original investment can be ascertained, changes in values, particularly in regard to land,

[1] *Ibid.*, Vol. XX, p. 334 (pp. 307–399 for entire case). Cf. Vol. XXXI, p. 358 (in the "Five Per Cent case," pp. 351–454).

may make this original investment an unsatisfactory measure of present physical value.[1] A physical valuation of transportation plant, such as the Interstate Commerce Commission is now carrying out[2] for railroads of the United States, may provide an important standard by which to judge profits and rates.

§ 5

Summary

In this chapter we have seen that railroads are partial monopolies in that there are almost always intermediate points served by only one line. As to points served by more than one line, we have seen that formal rate agreements and pooling agreements have been common among competing railways, but that such agreements are now illegal. Competition among railways may be ruinous to the competing companies if facilities are in excess of possible business, but is not otherwise necessarily so.

Transportation on the ocean is, by virtue of the fact that a route does not have to be constructed, less sub-

[1] In *Smyth* v. *Ames*, 169 U. S., 466, the Supreme Court has laid down as follows the matters to be considered (see particularly p. 455): "We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public. And, in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stocks, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property." That the Supreme Court would be inclined, however, to put chief emphasis on a physical valuation, seems to be indicated by its discussion in the recent Minnesota Rate case, 230 U. S., 352.

[2] By an Act of March 1, 1913.

ject to monopoly control than rail transportation. But agreements among water carriers have been common, and the field of competition has been thus considerably limited. Furthermore, various devices, such as deferred rebates and fighting ships, have been adopted to destroy the competition of independent lines. Exclusive arrangements with railways, and control of wharf space by conference lines and by railways, have also served to make independent competition difficult.

Monopolistic rates, like protective tariffs, may serve to interfere with commerce which ought, for the general economic welfare, to take place. As government should itself avoid undue interference with commerce through the establishment of protective tariffs, bounties, navigation acts, or other special favors, so also it should prevent, directly or indirectly, any economically injurious interference with commerce, which private interests might occasion through the charging of monopolistic transportation rates. Yet in thus protecting commerce against the exactions of private monopoly, government regulation must avoid enforcing rates so low that capital will not be forthcoming for transportation requirements. The rates fixed should be such as will yield, with reasonably good management, the average rate of return on capital invested in construction, and a fair return or rent on the land requisite for way and terminals.

CHAPTER IV

Economically Undesirable Rate Discrimination among Places

§ 1

Competition as a Cause of Discrimination among Places

Discrimination in rates, among places, is chiefly due to the existence of effective competition among transportation companies at some places and not at others. Thus, two, three, or more railroads may connect *A* and *C*, while *B* is on the line of only one. (See figure 8.)

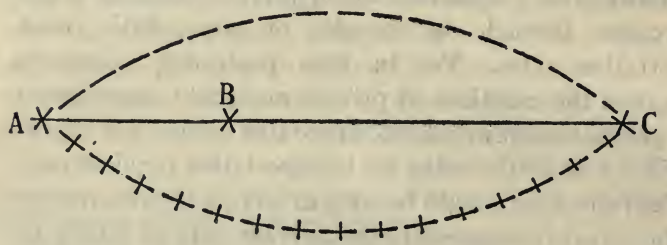

Figure 8

Competition among the several railroads for traffic from *A* to *C* and from *C* to *A* will make rates on this traffic low, while the absence of competition for the shorter distance traffic will make rates from *A* to *B*, *B* to *A*, *B* to *C*, and *C* to *B* comparatively high in proportion to service rendered (or distance the goods are carried).

The competition which introduces this inequality of rates need not be competition of routes. It may also be competition of directions, competition of locations, or even competition with local self-sufficiency.[1] Consider one of our illustrations of competition of directions, in a previous chapter, where we assumed the railroad *AC* (see figure 9) to make a low rate on coal from *A* to

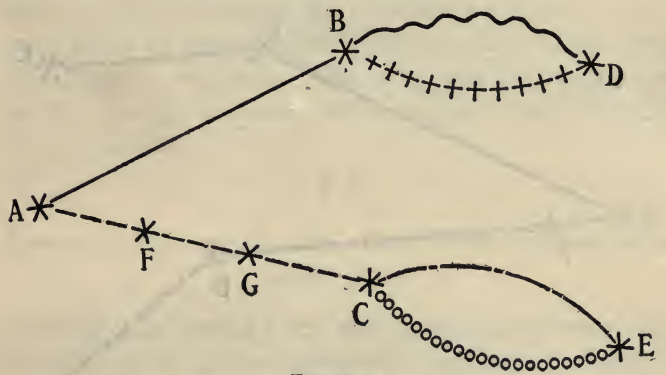

FIGURE 9

C, in order to prevent the coal produced at *A* from being shipped almost entirely over the line *AB*. In this illustration, the railroad *AC* is not compelled by competition of directions to make low rates from *A* to *G*, for *G* cannot secure coal over any other railroad; or from *F* to *G*, or from *F* to *C*, for *F* has not the choice of shipping over another line. These intermediate rates may therefore be appreciably higher, in relation to the distance the intermediate traffic is carried.

In the case of competition of locations, also, all points are not equally benefited. Thus, though the line *EDA* (see figure 10) makes low rates on goods carried from

[1] See Chapter II (of Part III), §§ 1, 3, 4, 5.

D to *A*, lest certain industries be located entirely at *B* instead of partly at *D*, it may not need to make correspondingly low rates from *D* to *F*. For in *F* the producers at *D* do not feel to the same extent as in *A*, the competition of their rivals at *B*. High railroad rates from *D* to *F* may be shifted upon the consumers at *F*, in the prices of the goods carried. The burden of high rates to *A*, however, must fall upon the producers at *D*

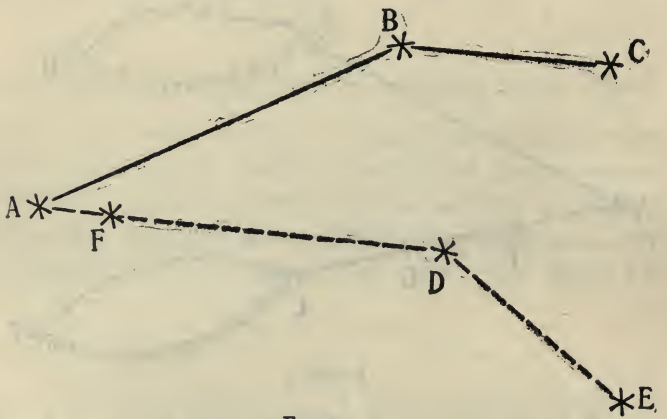

FIGURE 10

and may cause them to abandon the market and, perhaps, the business. In any case, it is likely to decrease the traffic of railroad *EDA*. Hence, lower rates may be made by the railroad on traffic to *A* than on traffic to *F*.

If the competition is with local self-sufficiency, there is a like reason for discrimination. A railroad connecting

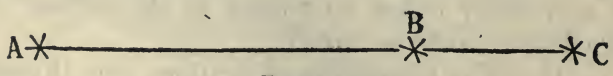

FIGURE 11

A (see figure 11), a center of coal production, with *C*, where coal could be mined somewhat less advanta-

geously, may make a low rate on coal from *A* to *C*, as the only way to get the traffic. But it will not be under similar compulsion to make an equally low rate from *A* to *B*.

Discrimination between places occurs in water transportation also. At one time the White Star Line carried goods from New York via Liverpool to Australia at rates 30 per cent. lower than the rates charged on the same kinds of goods carried on the same vessels from Liverpool to Australia. This was due to competition for the through business, with the direct lines from the United States.[1]

§ 2

Economic Loss which May Flow from Discrimination among Places

Let us now consider the effects, on all interests concerned, and on general community welfare, of discrimi-

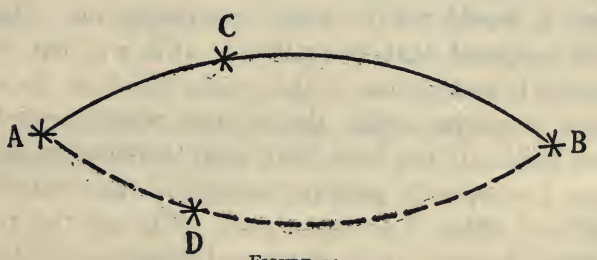

FIGURE 12

nation among places, as it has been very generally practiced by transportation companies. We may begin with place discrimination caused by competition of two

[1] Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, in Proceedings of the Committee on the Merchant Marine and Fisheries in the Investigation of Shipping Combinations, 1914, Vol. IV., p. 106.

or more railroads with each other. Suppose two roads joining the cities *A* and *B* (see figure 12), *C* being a town or city on one of the roads only, and *D* a town or city on the other. Competition makes rates from *A* to *B* lower than from *C* to *B* and lower than from *D* to *B*.

Looking at this discrimination from the standpoint of either road and the constituency it serves, and assuming conditions to be fixed for this road by the policy of the other, the discrimination seems to be entirely justifiable. If *C* complains of injustice in the rates charged, say, from *C* to *B* as compared with the rates from *A* to *B*, the railroad *ACB* has a ready answer. It is compelled to make a low rate from *A* to *B* and *vice versa*, because of the competition of the line *ADB*, or forego all traffic between those points. Yet this traffic pays the terminal expenses involved and the necessary expenses for the production of train mileage. It leaves, also, we must suppose, some small surplus to apply towards the general expenses, if not towards fixed charges or profits. Otherwise, it would not be worth competing for. Had it been supposed that the railroad *ACB* was not to be allowed to seek a share of this traffic, which, in the sense noted, is paying traffic, the railroad might never have been built. It has been built, and, therefore, is able to serve *C* also, only, perhaps, because of the competitive traffic of which it secures a part. Without this traffic it would not even pay to continue business, so, probably, only partially utilizing the plant, unless the traffic to and from *C*, together with other intermediate traffic, could pay high enough charges to cover all general expenses and something over. On the other hand, to charge rates on traffic to and from *C*, and on other intermediate traffic, as low accordingly as on traffic which

is competitive, would probably mean lack of fair profit and, conceivably, even abandonment. The conclusion is drawn, then, that all these parties concerned really benefit by the discrimination. *A* and *B* get low rates. The line *ACB* gets traffic which helps it to meet general expenses and to pay interest and dividends. *C* gets the service of the line *ACB*, which it could not get, or could not get at such low rates, if *ACB* were prevented from securing, even at relatively discriminating rates, the longer distance business.

The above is essentially the argument usually presented to justify discrimination between places. But this argument leaves certain important facts out of account. To begin with, the reason why the traffic from *A* to *B* is carried at low rates is only because there happen to be two lines serving *A* and *B* as compared with one line each serving *C* and *D* respectively, and not necessarily because the cities *A* and *B* are naturally any better located for business than *C* and *D*.[1] When we come to consider the matter of utilization of both roads, we do not find that the discrimination increases it. The low rates from *A* to *B* are not made because the total traffic between those points will decrease if they are not made; they are not due to the fear that the traffic, as a whole, can bear no higher rates without being *destroyed*. On the contrary, each road makes these low rates in the fear that otherwise its traffic will decrease to the profit of the competing road, in the fear that the traffic between *A* and *B* cannot bear higher rates without being *diverted*. As regards the effect of low rates on

[1] Though, of course, the larger populations of *A* and *B*, if those were relatively large cities before the building of the roads, may have been a reason why more than one company sought entrance to them.

total traffic, it is entirely possible that a reduction of rates in favor of *C* would increase traffic to and from *C*, fully as much as reduction between *A* and *B* increases the total traffic from *A* to *B* and *B* to *A*. As far, then, as the matter of complete utilization of existing railroad plants is concerned, there is little if any more reason — perhaps, sometimes, less reason — for reducing the *AB* rates, than for reducing the *AC* and the *CB*, the *AD* and the *DB*, rates. The *AB* rates are reduced only because each road wants its facilities fully utilized, if possible, even at the expense of the other, and not because the reduction is likely so to increase traffic as more fully to utilize the facilities of both. As regards this phase of the economic results, there is no special gain from the *discrimination*, as such, whatever gain might result from an all-around rate reduction. It is true that up to the point of full utilization of plant, railroads are operated under the principle of increasing returns, that up to that point, large traffic is carried proportionally more cheaply than small traffic, and that, therefore, large traffic, bringing this full utilization, is desirable. But it is also true that complete utilization of all existing plant, *i.e.* of both railroads, will probably, in the circumstances under discussion, be no more furthered by low competitive rates than by low non-competitive rates. There is no additional economy in utilization, resulting from discrimination as such.

Since the competition of the two railroads, and the consequent discrimination, favors *A* and *B* at the expense of *C* and *D*, it results that *A* and *B* develop more rapidly than their natural advantages would seem to warrant; while *C* and *D* develop less rapidly, have their development retarded, or are even made to decline

in industry, wealth, and population, by the disadvantages to which they are thus subjected. If no rate differences were made, other than those compelled by differences in actual cost, *i.e.* if the distance principle were, in situations like the one here discussed, consistently applied, then the places naturally favored would be the ones to develop, rather than those favored by the fact — sometimes, in a sense, the accident — of being served by two or more railroads. Discrimination many times deprives cities or districts of the benefits which would result to them from their natural advantages. In so far as it actually does this, and tends to develop industry where the natural advantages of industry are less good, it lessens the wealth-producing power and, consequently, the prosperity, of the country. It prevents the development of industry where it should develop, and encourages its development where it should not. It may not, like a protective tariff, divert effort into relatively unprofitable lines of production; but is more likely to cause those lines of production which would in any case be chosen, to be carried on in relatively disadvantageous localities. Rate discrimination between places resembles protection, to some extent, in that it may benefit some localities of the country at the expense of others.[1]

This discrimination may also bring about undesirable or uneconomical transportation. There may, for instance, be industries for which *C* has as great advantages as *A*, or even greater advantages, the products of which are marketed largely in *B*; yet discrimination in rates causes these industries to be located at *A*. The consequence is that goods have to be carried from *A* to *B*,

[1] Cf. Part II, Chapter V, § 6.

over a comparatively long distance, which might be carried from *C* to *B*, a relatively short distance. More labor has to be expended that the community may attain a given result. In this possible consequence, also, discrimination between places resembles the protective tariff. The same objections apply if the discrimination between places is caused by competition of directions or competition of locations. The existing legal limitation and prohibition of discrimination between places tends to raise, in this regard, the plane of competition, and would seem, therefore, to be justified. Section 4 of the Interstate Commerce Law prohibits a greater charge for a shorter distance than for a longer one over the same line in the same direction when the shorter distance is included in the longer, except by permission of the Interstate Commerce Commission; while section 3 prohibits any undue discrimination between places. What is undue discrimination in any specific case, where there is complaint or where investigation is made, is decided by the Commission.

Complete prohibition of discrimination among places (except under special circumstances to be discussed in the next chapter) does away with the economic wastes above discussed and is, in so far, economically desirable. But in some cases its enforcement may involve considerable hardship to the railroads affected. If the rivalry of these railroads to secure the competitive traffic is keen and if this competitive traffic is important, the competing railroads may feel obliged to make *correspondingly* low rates on their *intermediate* traffic — when forbidden to discriminate — instead of venturing to correct the discrimination, in part, by *raising* rates on the *longer distance* traffic. Such a situation might mean

that the general level of rates would be unremunerative, that profits could not be had, perhaps that fixed charges could not be paid. It might be well, therefore, if Congress would legalize rate agreements and pooling, *when consented to and supervised by the Interstate Commerce Commission*, so that cases of this sort could be settled with entire fairness and common sense. But it should not be forgotten that in very many cases the traffic which is not directly competitive is an important part of the whole, that the railroads concerned would not be willing greatly to lower their rates on it, even though compelled not to discriminate, but that they would prefer, each, to risk the loss of some competitive traffic, by maintaining their rates on that traffic. All of them would probably continue to get, therefore, a share of the competitive traffic. In such cases, at least, it is not necessary to legalize pooling in order to enforce equality of treatment without great injury to the railroads. Nor is pooling a necessary measure when traffic is sufficient to tax all the roads. As a matter of actual practice, we do not allow pooling or formal rate agreements, and we do, not altogether unsuccessfully, prohibit rate discrimination.

§ 3

The Uneconomy of Discrimination either in Favor of or against Imports

A special class of discriminations, to which these objections would apply, is that of discriminations by railroads, in connection sometimes with navigation lines, against domestic and in favor of imported goods. In a case brought before the Interstate Commerce Commis-

sion, in 1905–1907,[1] it appeared that there was rate discrimination against domestic plate glass and in favor of the imported product. On the domestic product, in trunk-line territory, third-class rates applied, whereas shipments from foreign producing points via American ports and thence to interior towns and cities were given fourth- and fifth-class, and even lower, rates. It was complained, for example, that plate glass could go from Antwerp, Belgium, to Chicago, by way of Boston and the New York, New Haven and Hartford Railroad, at 40 cents a hundred pounds for the entire distance, or (as assumed by the Interstate Commerce Commission) 30 cents for the share of the railroads, as compared with a rate of 50 cents a hundred pounds on domestic plate glass from Boston to Chicago. Between Antwerp and Chicago, via New Orleans and the Illinois Central Railroad, 5200 miles, the entire rate was 32 cents, or about 22 cents for the rail part of the haul, as compared with 75 cents asserted to be the rate from New Orleans to Chicago on the domestic product. These differences were presumably due to competition, the railroads competing, in connection with the ocean carriers, for the carriage of the foreign glass, which might come by way of any port, but competing apparently much less for the traffic from one point to another within the country, which had a more limited choice of routes.[2]

The effect of such discrimination, in general, whatever its effect might have been in this particular case, must be to discourage home production, and, therefore, to turn industry away from a line which it would, perhaps,

[1] Interstate Commerce Commission Reports, Vol. XIII, pp. 87–102. Cf. an earlier case in Interstate Commerce Commission Reports, Vol. IV, pp. 447–534.

[2] At the time this complaint was brought, the Interstate Commerce Commission did not have its present power to prevent or correct such discriminations.

naturally follow. May not this be as greatly uneconomical as the policy of the protective tariff? If goods can really be produced more cheaply abroad than in the United States, including cost of transportation, it is more profitable for us to buy such goods abroad than to produce them here, but the same conclusion does not follow if home production is made more expensive to consumers because of an artificial barrier raised against the home-produced article.[1]

Let us note, specifically, the influence of such discrimination upon the different interests concerned. The railroads, taken as a whole, have no more to gain from traffic in plate glass, or other goods, produced abroad, than from the same traffic originating on the boundaries of our own country, or even than from traffic originating farther inland, if the rate pays as large a surplus above the incident cost. Each company lowers rates on the imported product only to *divert* traffic from a rival or to keep traffic which otherwise might be diverted to rivals. Taking the roads as a whole, it is not to be assumed that low rates on imported goods increase the quantity of goods they carry, any more than would correspondingly [2] low rates on the same goods produced in the United States.

From the point of view of domestic producers, the discriminating rates are a discouragement. From the point of view of domestic consumers, — in the case

[1] In this particular case, the artificial barrier was a partial offset against tariff protection. We shall deal here, however, with the rate discrimination considered by itself.

[2] By correspondingly low rates is here meant not necessarily rates the same per mile regardless of distance, but rates which, for the same amount of goods carried, would yield the same surplus for general expenses, fixed charges, and profits, above the special additional cost of carrying the goods.

cited, buyers of plate glass, *e.g.* at Chicago, — the important point is that the glass should be procurable at the lowest possible price. They do not care where it comes from so long as price and quality are satisfactory. If the railroads make unduly low rates on the imported product, domestic consumers gain no more than the railroads sacrifice. If American producers, without the discrimination to contend against, could undersell their foreign rivals, in the Chicago market, then the reduction in the rate on the imported goods would cause a decrease of revenues to the railroads, but no gain to consumers until it brought the foreign product below the domestic in price. The railroads must lose, therefore, more than the consumers gain; or, if non-discriminating rates would enable domestic producers to realize a higher price, then the railroads *and* domestic producers must lose more than domestic consumers gain. It cannot be said that the railroads are compensated for their loss by carrying more glass, for, as has been said, it cannot be assumed that the low rates charged will stimulate traffic in imported glass, any more than correspondingly low rates would stimulate traffic in domestic glass. Non-discriminating rates, with exceptions to be presently noted,[1] at least if they can be secured without lessening the stimulus of competition, or without raising average transportation charges, are economically more desirable.[2]

[1] Chapter V (of Part III).

[2] A secondary, though doubtless in practice very slight, result of such artificial stimulus of imports, is the tendency for money to flow abroad, making prices lower here and higher there. As a consequence, we must pay somewhat more for what we buy abroad, while we receive somewhat less for what we sell. In other words, the rate of interchange of our goods for foreign goods is made less favorable. When this is an incidental, as well as a relatively minor, consequence of a trade profitable to us, we need not complain; but it deserves to be mentioned as an additional disadvantage from the stimulating of an uneconomical trade.

It hardly needs to be added that the reverse system of artificially favoring home producers is also uneconomical, whether it takes the form of shutting out foreign goods by arbitrarily high rates, or of subsidizing domestic producers by rates unduly low.[1] Such a policy of discrimination against foreign producers is most likely to be followed — as it is, in fact, followed in Germany[2] — where railways are operated by government, and where, therefore, railway policy becomes a matter of politics and may be turned, purposely, to protectionist ends.

It is also possible to use publicly managed railroads to derive public revenue from the importation of goods not produced within the country, *i.e.* to use them as a means of collecting import duties not intended to be protective. Or railroads can be used, as in Germany,[3] to raise a revenue for government from traffic in general. Obviously such a policy is in danger of being carried too far, of unduly preventing a geographical division of labor which might be profitable, and so of preventing the growth of that fund of national wealth from which all taxes must be drawn.

It is apparent that the relations of different rates to each other are likely to be different when all or nearly all the railroads of a country are under one control, *e.g.* government control as in Germany, than when they are operated by different companies, each anxious to develop its own business regardless of what happens to the rest. In the one case, discrimination between places may be reduced to a minimum, except as protectionist influences

[1] Cf., however, Chapter V (of Part III), § 6.

[2] H. R. Meyer, *Government Regulation of Railway Rates*, New York (Macmillan), 1905, p. 35.

[3] *Ibid.*, pp. 72, 73.

prevail. In the other case, discrimination between places will tend towards a maximum, except as it is prevented by government regulation. Discriminations which, if not effectively prohibited from doing so, a railroad might feel obliged to make in the latter case, would often be discriminations which would not benefit but which would tend to injure the country, and the railroad systems considered all together, and which, therefore, if the same interest controlled all the lines, would not be made. It should be added that somewhat higher rates *in proportion to distance carried*, for short-haul than for long-haul traffic, are not necessarily discriminations. While the train mileage costs increase as distance increases, the terminal expenses do not. If a proper amount to cover terminal expenses is added to a hauling charge made in proportion to distance, the total will be absolutely less but greater in proportion for short distances than for long. It will not, however, on that account be discrimination.

§ 4

The Uneconomy of the "Basing-point" System

It has been argued by some economists[1] that discrimination between places may be economically justifiable for the purpose of concentrating the movement of freight upon "basing points," thence to be redistributed to surrounding towns. Thus, in this view, it might be preferable that freight should be carried from Boston or New York to Montgomery, Ala., in carload or trainload lots and thence distributed by jobbers to neighboring towns in less than carload lots, rather than

[1] For example, H. R. Meyer, *Government Regulation of Railway Rates*, p. 298.

that shipments should go direct from the North to dealers in these other towns and, therefore, all the way in small consignments. The basing-point system of the South tended to the former result by making rates to all local points equal to the rate to the "basing point" plus a local rate from there on or a local rate back to an intermediate town. Thus, the rate from New York to Troy, Ala., was made by taking the rate to Montgomery and adding the local rate (a higher rate per mile) between Montgomery and Troy,[1] even though Troy was in many cases the nearer point and goods to Montgomery were to a considerable extent hauled to that place through Troy.

The error in the argument favoring this practice lies in the assumption, too readily arrived at, that, without place discrimination, freight must move toward its destination all the way in small lots. Nothing could be farther from the truth. It needs but to make a proper difference, dependent upon difference in cost of carriage, in wholesale and retail rate, such as a difference between the rate for carload as distinguished from less than carload shipments, to secure the larger shipments presumably to the extent that they ought to be large. If it really costs less per ton to carry goods in carload lots than in smaller quantities, then the railroads should and legally may, as in practice they usually do, make a distinction in the rate. Where the advantage of having goods move in smaller quantities and more frequently more than offsets the disadvantage of the higher cost, and therefore rate, they will be moved, and ought to be, in less than carload lots. In many cases it may be desirable that they should go in smaller quantities

[1] See Interstate Commerce Reports, Vol. VI, pp. 3–35.

direct to retail dealers, even at a higher rate, rather than be burdened with two sets of loading and unloading expenses. But where there is no such advantage, the tendency will be for the goods to be carried in larger shipments. If it is really more economical for goods to be carried to Montgomery in carload lots and thence redistributed, and if the difference in the carload and less than carload rates is an accurate measure of the difference in economy or cost, then the small neighboring dealer will find that he can more cheaply buy his goods in Montgomery or some other large near-by city from a jobber to whom they have come by carload lot, than he can get them from Boston or New York in smaller amounts. The consequence will be that the large jobber will establish himself in some trade center from which he will supply the surrounding market.

There is ample evidence from experience, that the territorial distribution of the jobbing trade is greatly dependent on the relation of carload to less than carload rates. In one of the cases before the Interstate Commerce Commission, involving rates from eastern and middle western points to the Pacific Coast,[1] a considerable part of the complaint was that the roads made too great a difference in rates between carload and less than carload shipments and that, partly in consequence of this difference,[2] goods were shipped to far western jobbers in carload lots, to be by them redistributed, whereas they might otherwise have been sent in smaller quantities from St. Louis and other middle western jobbing centers, direct to the far western retailers. In this case it was

[1] Interstate Commerce Reports, Vol. IX, pp. 318–372.

[2] Although partly, doubtless, because of lower rates to the coast than to inland far western points.

alleged that the difference in rates on shipments of the larger and smaller amounts was excessive, and unduly and unfairly built up the far western jobbing centers at the expense of the Middle West. Either an excessive difference or too small a difference, *i.e.* any difference other than that properly required by the difference in cost, tends to make freight move in uneconomical ways; but it is sufficiently clear that the extent to which goods are shipped in large lots to distributing centers is considerably affected by comparative carload and less than carload rates; and it is not unreasonable to conclude that a difference based on difference in cost to the transportation company will tend to bring large-scale shipment to whatever extent is most economical, and will tend to build up jobbing centers where the economic welfare of the community most requires them.

It does not, then, require arbitrary discrimination between places to bring about shipment of goods in the most economical way. And arbitrary discrimination between places, so far as it brings about the wholesale shipment which a system of rates based upon cost would also bring about, may result, just because it is a purely arbitrary rather than the natural method of attaining the desired end, in a location of jobbers in a city favored by the rate system, when they would otherwise, perhaps, find a different city more advantageous. The basing-point system, in other words, may be a comparatively artificial selection and building up of wholesale or jobbing centers, as contrasted with a possible selection and development less artificial and more desirable. The basing-point system may, also, because of its arbitrary discrimination, unduly and uneconomically concentrate business at the favored point.

§ 5

Discrimination in Favor of Intrastate Business, Resulting from Orders of State Commissions

No less objectionable than discrimination caused by competitive conditions or by the arbitrary action of transportation company managers, is discrimination brought about, as, on occasion, it has been brought about, by the orders of state railroad commissions. To illustrate, the Texas Railroad Commission not long since ordered rates on traffic from Dallas and Houston to various other Texas points, so low as to put Shreveport, La., at a disadvantage in seeking to market goods, competitively with Dallas and Houston, in these other Texas centers.

Such discrimination is partly analogous to a protective tariff (around the borders of Texas). It would tend somewhat to prevent the bringing of goods into Texas from points outside of that state. But it differs from protection because it operates not alone and not intentionally through high rates on imported goods. A state commission, indeed, would have no shadow of power to order an increase of rates on interstate traffic. The discrimination in question operates rather through the enforced reduction of intrastate rates. There is here, therefore, some resemblance to a bounty or subsidy on internal trade. Nothing is done, directly, to prevent importation. But home producers, or jobbers, or both, are favored by the low intrastate rates. If the state were to compensate the railroads operating within it, for any loss so caused, the burden of the lower rates would fall on taxpayers, and the analogy with a bounty

or subsidy would be complete.[1] We should then certainly contend that even the Texans themselves, as a whole, gained nothing from the discrimination. Every dollar thus saved by a Texas consumer, through patronizing a home producer or jobber favored by the low rates, would be a dollar filched from the Texas taxpayers. And to the extent that an outside producer could sell, if not discriminated against, more cheaply, the taxpayers must lose by such discrimination more than the consumer gains. Furthermore, Texas industry would be diverted out of its most profitable channels, artificially, and at the expense of Texas taxpayers.

There is not, of course, in practice, any such compensation made to railroad security owners, by a state, for low intrastate rates. But our conclusions as to the unwisdom of the policy are not, on that account, very different. The loss resulting from the reduced rates, if taxpayers are not to bear it, must fall either upon the owners of railroad securities, who thus get smaller returns, or upon other shippers and consumers who have to pay higher rates than would else be required. These other shippers and consumers may be, to a large extent, persons in Texas who ship goods to and get goods from other states. Shippers and consumers in these other states may likewise suffer. If intrastate rates may be made too low to yield a fair profit, the opportunities for enforced reduction of high interstate rates become less favorable. So far as interstate rates might thus remain higher than they would otherwise be, they must operate, like a protective tariff, to prevent trade profitable both to the rate-reducing state and to the other states. It is difficult to believe that a state can gain any permanent

[1] See Part II, Chapter VII and §§ 2, 3, and 4 of Chapter VIII.

benefit from the enforcement of discriminatory and unduly low rates on intrastate business. If it secures a temporary gain at the expense of inadequate returns to railroad investors, the building of railroad mileage within the state will be discouraged. If the low intrastate rates involve higher *interstate* rates, they act like a protective tariff in restricting profitable trade and like a bounty in encouraging unprofitable trade; though the burden of this "bounty" falls upon those who still engage in interstate business, rather than upon the body of taxpayers. And neighbor states are hardly likely to allow the railroads to recoup any losses suffered, by charging high intrastate rates within their borders.

A state commission may properly prevent the charging of exorbitant or monopoly rates on intrastate business, and throw upon the Federal body the responsibility for discrimination against interstate business, resulting from unduly high rates allowed on such business. But it should not, even for the welfare of the state itself, enforce discriminating and unfairly low intrastate rates. Nor can such a policy be allowed by the Federal government, even if individual states short-sightedly favor its application within their boundaries.

In the Shreveport case, complaint was made to the Interstate Commerce Commission against the discrimination to which Shreveport was subjected. The Interstate Commission ordered that the discrimination should cease. It fixed, to be sure, maximum rates, thus correcting the discrimination, in part, by reducing interstate rates. But it allowed the discrimination to be partly corrected by the raising of intrastate rates, from Dallas and Houston to other Texas points. Appeal was therefore made to the Commerce Court and from it to

the Supreme Court.[1] The ruling of the Interstate Commission was objected to as beyond its authority, on the ground that this Commission has no authority over rates on traffic wholly within a state and that some of the intrastate rates in question had been fixed by the Railroad Commission of Texas below the maximum rates prescribed by the Interstate Commerce Commission for interstate traffic. The Supreme Court, in handing down a decision favorable to the Federal regulating body, declared that Congress has the right to prevent such discrimination against interstate commerce as would have resulted from the uncorrected Texas rates, and, in general, that Congress has authority to prevent any use of an instrumentality of interstate commerce (*e.g.* a railroad) which would discriminate against such commerce. The power to deal with the *relation* of intrastate and interstate rates, *as a relation*, the court asserted to lie wholly with Congress.[2]

§ 6

Discrimination by a Transportation Company in Favor of Traffic Moving a Long Distance over its Own Lines

Discrimination may also result from the desire of a railroad (or navigation company) to give preference to traffic moving solely or mainly over its own lines as against traffic using chiefly the lines of another company. Thus, goods may be produced at some point or

[1] *Houston and Texas Railway* v. *United States*, 234 U. S., 342.

[2] The decision in the Minnesota Rate case (230 U. S., 352) is not inconsistent with this. In that case the court upheld state-made rates which were asserted to involve discrimination against interstate commerce. But in that case, as the court took occasion to point out, no application of Federal regulation through a decision of the Interstate Commerce Commission was before it for review.

points on a railroad and be marketable in two or more directions; and it may be that if the goods are sent in one of these directions they will soon leave the rails of the originating line to complete the journey over another road, while if they are sent to a market in a different direction, the originating road can carry them most or all of the way. Under such circumstances, the originating road may be tempted to charge comparatively high rates per mile for its part of the joint haul made by small use of its own rails, while charging comparatively low rates per mile on traffic going the long distance over its own lines.

In a case decided by the Interstate Commerce Commission in 1900, it appeared that the Louisville and Nashville Railroad was engaging in this practice in regard to naval stores and cotton shipped from points on its Pensacola and Atlantic division in Florida. These goods, if shipped eastward, *e.g.* to Savannah, soon left the lines of the Louisville and Nashville road, reaching Savannah over other lines; while if they were shipped westward, some of them would eventually be carried hundreds of miles over its own rails. The eastward rates, accordingly, were kept comparatively high and the westward rates made comparatively low, largely in order to discourage eastward and encourage westward shipments. Such a policy involves discrimination between the markets to which the goods may be sent, — in the case mentioned, it involved discrimination against Savannah; it may cause traffic to flow in an uneconomical direction; and it may compel the market (Savannah, in this case) on the lines of the connecting railroad, to draw supplies from a relatively uneconomical

[1] Interstate Commerce Reports, Vol. VIII, pp. 376–408.

source. Nor do the transportation companies themselves, as a whole, benefit from such a policy, since the traffic which any one company gains by thus preferring it own lines, another company loses; and the policy, if allowed, can be practiced independently and in retaliation by all the companies. The Interstate Commerce Commission, in the case above cited, declared the discrimination practiced to be unreasonable, and ordered a readjustment which partially, at least, corrected the evil complained of.

A railroad may likewise endeavor, by means of discriminating rates, to supply cities on its own lines mainly with goods which it carries a long distance over its own rails, rather than with goods produced at other points, which must be delivered to it by connections and which it can carry but a few miles. This species of discrimination, also, involves economic waste and has been disapproved of by the Interstate Commerce Commission.[1]

§ 7

Summary

Discrimination between places we have seen to be chiefly due to competition. This competition may be competition of routes, competition of directions, or competition of locations. It may even be competition with local self-sufficiency.

Competition between two or more railroad companies, which causes discrimination by each in favor of competitive and against intermediate traffic, involves waste. The railroad plants, considered altogether, are probably

[1] Interstate Commerce Reports, Vol. VI, pp. 488–519 (see, especially, pp. 515, 516).

not more fully utilized than if rates were no higher on the average and more equal, though one or more plants may be more fully utilized and the others, or other, less so. Industry is less apt to develop in those places where the natural advantages favor it. Rather is its location partly determined by the fact of railroad competition at some points and not at others. Furthermore, goods may frequently be carried by rail a longer distance, when a more economical location of industries would result in their being carried a shorter distance.

This kind of discrimination between places has been practiced by American railroads, in favor of import traffic, as against carriage of goods from an American center of production, to the same American consuming center. The consequent tendency is for American labor and capital to be kept out of or driven out of a line which they would otherwise naturally follow. Goods are imported from abroad which might be produced with less labor cost at home. Discrimination *against* imported goods is more likely to be practiced by a government railroad system influenced by protectionist motives. It is no less uneconomical than the reverse practice. Discrimination in *favor* of imported goods tends to drive a country's industry out of channels which it might profitably follow. Discrimination *against* imported goods tends to guide a country's industry into channels which are not profitable.

The basing-point system has sometimes been defended as a kind of discrimination between places, which conduces to economy of transportation by favoring large shipments. But it appears that an economically justifiable difference in rates on carload and less than carload freight, based on actual difference in cost of carry-

ing, is likely to secure large-scale shipment so far as it should be secured. And, on the other hand, the basing-point system, like other discrimination between cities, may tend to develop business in a favored city at the expense of some other, better situated city, and beyond what true national economy would justify.

Unduly low intrastate rates made by a state commission, for the encouragement of shippers within the state as against competitors from outside, are adverse to the general interest of the American public and are practically certain to injure even the state which endeavors to enforce them. Federal power, operating through the Interstate Commerce Commission, is, however, supreme where interstate business is discriminated against and can put a stop to such discrimination.

Discrimination by a transportation company against goods coming from or going to points on other lines, in order to force goods to go long distances over its own lines, also involves economic waste.

CHAPTER V

Economically Defensible Discrimination among Places

§ 1

Discrimination among Places, by a Roundabout Line

In the last chapter we saw that discrimination among places, caused by competition at some places and not at others, and practiced on all the lines or routes engaged in this competition, involves economic waste. But there are situations in which discrimination by a railroad in favor of junction points, and against intermediate points, is not uneconomical. Such a situation may exist when one of the lines connecting two junction points is appreciably more roundabout than the other or others. We saw, in a previous chapter,[1] that goods might more profitably be carried by a relatively roundabout line in three cases: first, when traffic is in excess of the facilities of more direct lines and the surplus can be carried by the roundabout one, this may be better than to invest additional capital in direct lines; second, when a new line or an additional line must be constructed for traffic between two points, a roundabout line may sometimes be preferable and able to carry the traffic more cheaply, by virtue of securing more intermediate traffic to help pay general expenses, interest, and profits; third, when facilities are in excess of traffic and must be in part

[1] Chapter II (of Part III), § 2.

abandoned, it may be desirable to continue operating a relatively roundabout line between two points if intermediate business pays part of its expenses and profits and enables it to carry the through business for the lowest rates. But if a relatively devious line, *ABCD* (see figure 13), is to carry traffic between two points, *A*

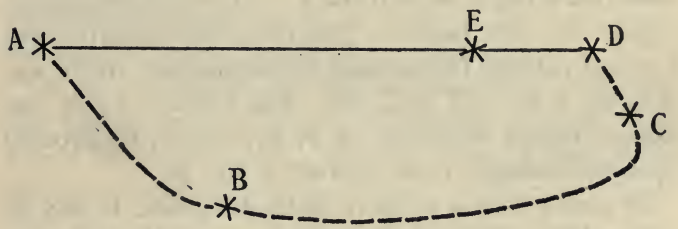

FIGURE 13

and *D*, which are or can be served by a more direct road, the roundabout line must be permitted to make rates at least as low as those the direct line does or would make. If the direct road is there, the roundabout road, *ABCD*, will have to make an equally low rate between *A* and *D*, to get a satisfactory share of the traffic. Furthermore, the cities *A* and *D* may claim, with reason, that their situation with respect to each other entitles them to a rate on traffic between them, based on the shortest distance connection; and that even if a short line did not exist, the rate between them should not be much, if any, higher than would yield a fair profit on the capital required for such a direct line.[1] A higher rate would

[1] This does not mean that the longer distance points can always reasonably expect low rates on traffic between them, for such traffic may sometimes be so light that a direct road could not be made to pay or could be made to pay only by charging very high rates. A roundabout line may conceivably be able to charge rates no higher, perhaps lower, and still not discriminate against intermediate points. If so, discrimination by such a line against intermediate points would not be justifiable.

be exorbitant and would subject *A* and *D* to unreasonable disadvantage. A higher rate would not be normal and could only continue if no new company dared enter the business. For a normal rate is one which yields the average return on the capital necessary for the service. The roundabout line *ABCD* has been made long *in order* that it might serve *B* and *C*. Its roundaboutness is largely for their benefit. The extra cost incurred was incurred entirely for the sake of intermediate traffic, *e.g.* *A* to *B*, *A* to *C*, *B* to *C*, etc. The burden of this cost cannot, except arbitrarily or by favoritism, be imposed upon the through traffic between *A* and *D*.

In such a case as we have under discussion, it may be economically desirable that the long line should get at least a share of the business, rather than that it should refuse to compete, and should, therefore, for one possibility, encourage additional track building by a more direct road. Also, it may be necessary and right that the long-distance business, *A* to *D* and *D* to *A*, should not have to pay high rates. Yet the indirect line probably cannot, with reason, be expected to reduce all of its intermediate rates to an equally low level. From *A* to *C* over the roundabout line is farther than from *A* to *D* over a direct line. To compel the road *ABCD* to charge as little or less from *A* to *C* as should be charged and as it probably has to charge from *A* to *D*, may deprive it of a fair return. Such a policy, consistently applied over a long period of years, would tend, somewhat, to prevent the building of roundabout lives having to rely upon long-distance traffic for part of their returns. It would tend, therefore, to deprive intermediate points not in a direct line between two given points, of railroad service. To follow the policy of letting the roundabout line dis-

criminate against the intermediate points, may therefore make the discrimination against them really less than it otherwise would be. If such discrimination is prohibited, it may well happen that these intermediate points will either have no service, or will have to pay in rates the entire expenses and profits of a road; while *A* and *D* continue to get rates at least as low as a direct line can afford to charge, for if the reasonable rate over the direct line is not made voluntarily, it may be forced by regulation.

On the other hand, the extent to which this discrimination may properly be carried is not without limit. The longer line should not be allowed to charge rates on its intermediate traffic, where it has a monopoly, higher than would yield a fair profit on capital invested, from that traffic alone. Neither should it be allowed to engage in competition for the longer distance traffic between *A* and *D*, even if it were foolish enough to attempt to or would do so as a matter of temporary policy, at rates which would pay less than the special additional cost (train mileage and terminal expenses) of carrying this longer distance traffic. If a direct line can afford to carry the traffic for rates less than would yield the roundabout road some slight return above this cost, the direct line may properly be allowed to have it.

But we have seen that when competition between two or more lines causes discrimination against intermediate points on all such lines, there is a tendency towards uneconomical application of the community's labor force.[1] Even though the direct line taps less intermediate traffic than the other, it is almost certain that it will tap some, *e.g.* *A* to *E*. While the reasons given may sometimes justify a limited amount of discrimina-

[1] Chapter IV (of Part III), § 2.

tion in favor of *A* and *D* traffic as compared with intermediate traffic on a roundabout line, they do not justify on grounds of economy, discrimination in favor of *A* and *D* traffic as compared with intermediate traffic, *A* to *E*, etc., by a direct line.[1] *A* and *D* may reasonably urge that they are entitled to a rate between them which can be afforded, without discrimination, by a direct line, and that an indirect line, if this *A* and *D* traffic can be more economically carried by it, can properly make such a rate. But *A* and *D* cannot reasonably urge that they are entitled to a low rate on the direct line at the expense of *E*.

We conclude, then, that the rates on intermediate traffic on neither line should exceed a fair profit on the requisite capital for taking this traffic; that the rates on the competitive traffic should not exceed what would give, along with the charges on intermediate traffic, a fair profit on the cost of a direct line; and that discrimination on a direct line is not economically justifiable. How can the government or a government regulating body make its rulings consistent with all these principles, while yet not preventing the carriage of goods, in each case, by the more (or the most) economical line? The conclusion at which we shall arrive is substantially the same (though it will be stated more completely) as was arrived at in a previous chapter.[2] The direct line may, in most cases, properly be prohibited from discriminating at all, or at least from discriminating appreciably, against intermediate traffic. But such prohibition will make it impossible for the direct line to carry the *A* to *D* and *D* to *A* traffic for the bare additional cost to it of carrying this traffic, since this traffic must then pay a good share

[1] See, however, § 5 of this Chapter (V of Part III).
[2] Chapter II (of Part III), § 2.

of its general expenses, interest, and profits. To let the roundabout line carry this through traffic for the bare additional cost of carrying, while forbidding any discrimination on the direct road, would frequently give the roundabout line an undue advantage and would be likely to result in its taking most or all of this through traffic, *whether it was the more economical route or not.* To absolutely forbid discrimination by the roundabout line would be likely, as we have seen,[1] to prevent that line from carrying any of the through traffic, whether it was economically desirable that it should carry any of this traffic or not. If it is desirable that the direct line should not discriminate at all, some limit must frequently be placed to the discrimination allowed on the longer line, beyond requiring that it shall not carry competitive traffic at a loss and that it shall not charge exhorbitant rates on non-competitive traffic. The aim should be to leave the two (or more) railroads, after regulation of discrimination, in the same relative positions as before, so that each road would still be able to take, in competition, the business which it was most fitted, economically, to take. Properly to decide, in each case, what relation of rates may be allowed, would be a task of extreme difficulty. Only approximately satisfactory results can be expected. But it is believed that to have some control of this sort is better than to suffer all the wastes and inequalities of unregulated competition. If the general rule of the 4th section of the Interstate Commerce Law is applied to the direct road, viz., that no greater charge shall be made for a shorter haul than for a longer one, over the same line in the same direction, when the shorter haul is included in the longer, then a per cent.

[1] *Ibid.*

deviation from this rule should, in many cases, be allowed to the longer line. As a matter of fact, the 4th section of the Interstate Commerce Law, in its amended form, gives the Interstate Commerce Commission the power to prescribe, from time to time, the extent to which common carriers, subject to its jurisdiction, may be relieved from the above-stated requirement. The Commission, in the exercise of the discretion thus given it by law, should, it is thought, decide each case arising, with due reference to the principles above set forth, and, in fact, does decide cases in the light of some (though not, apparently, all) of these principles.[1]

The carriage of a part of import and export traffic by the more indirect routes involves discrimination in favor of this traffic by those routes, as compared with the rates charged upon intermediate traffic, including strictly domestic traffic. The more indirect lines must discriminate if they would meet the competition of the more direct. If they do not meet this competition, the direct lines may be encouraged to add to their plants, when the truest economy for the community would require that some of the traffic be carried on roundabout lines. On exported grain, for example, the rate to Liverpool via New Orleans or Galveston cannot be higher than by way of New York, and if the water rate is higher from New Orleans to Liverpool than from New York, then the rail rate to New Orleans must be correspondingly lower than to New York. Similarly, on imported goods the rate over the longer routes must be as low as over a shorter, if any goods are to be carried by the longer routes. But the intermediate rates, including strictly domestic rates, cannot usually be made correspondingly low. A certain

[1] See Twenty-fifth Annual Report of the Interstate Commerce Commission, 1911, pp. 22–26.

amount of discrimination on the longer lines should sometimes, therefore, according to the principles which have been here elaborated, be allowed. Providing the discrimination allowed is not so much that the through traffic is favored over domestic traffic, by the more nearly direct lines, it is not uneconomical and does not involve a turning of the country's labor out of its natural channels. For the foreign producers would have, in any case, and ought to have, the advantage of sending goods to their American market by the most direct route, and American consumers should have the advantage of getting foreign goods at fair rates over the shortest possible route. If roundabout lines are able, by carrying imported goods at the low rates which this competition of direct lines compels, to secure returns which make it possible for the long lines to serve intermediate points more cheaply than they otherwise could, or to serve intermediate points where railroads could not otherwise be built, it cannot be said that, on the whole, foreign producers are thereby given artificial advantages over domestic. Only when the competition for the longer distance traffic makes the rate so low compared to domestic traffic, as to subject domestic producers to discrimination even on the direct lines, can we confidently assert that the discrimination, by a roundabout line not completely utilized for intermediate or strictly domestic traffic, is uneconomical.

§ 2

Discrimination by the Longer or Longest Line, when there is Competition of Directions or of Locations

The principle that, under certain circumstances, it is economically desirable for a longer line to carry goods of

certain kinds, rather than a shorter line, and that the longer line may properly be allowed to discriminate to a certain degree in order to do so, applies not only when there is competition of routes, but also when there is competition of directions and competition of locations. Suppose, for example, the railroads AB and AC leading to a common market A from the divergent lumber-producing centers B and C, the road AC being the longer. (See figure 14.) Suppose, also, that the labor cost of

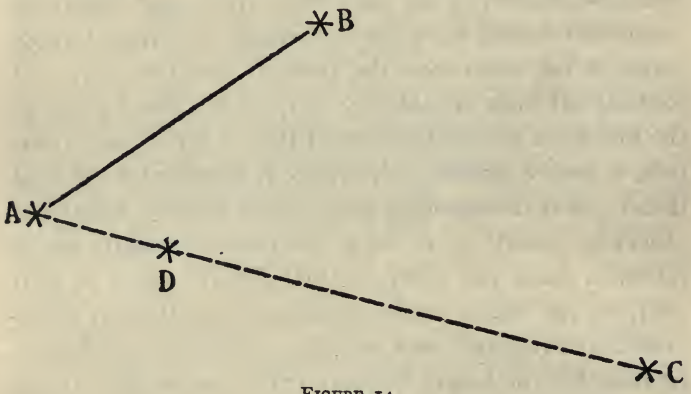

FIGURE 14

producing lumber at C is as great as at B. Suppose lastly, that there is competition between the roads, each to develop the lumber business on its line, *i.e.* competition of locations; or else that there is, for the lumber-producing center on each road, the option of shipping by another or other roads to a different market, so that there is a real competition of directions. Under such circumstances, it will sometimes be more economical that A should receive part of its lumber from C over the longer line. It may be that the longer line is able to pay much of its general expenses and profits from local business,

e.g. *C* to *D*. Yet the through traffic, *C* to *A*, will perhaps pay something more than the mere extra cost of carrying, and so will be worth seeking. To adopt the principle that *A* should be served entirely from the shorter distance source, *B*, is to insist that, if necessary, a new line from *B* to *A* should be constructed to carry the *B* lumber to *A*, even though this traffic alone would have to pay a much larger proportion of general expenses, fixed charges, and profits than the through traffic on the road *CA*. It might very well be more economical that the longer line, *CA*, which has intermediate traffic from *C* to *D*, etc., perhaps more than the other road, and which may, therefore, be able to take the *C* to *A* business for a little more than the mere terminal and train mileage expenses incident to it, should mainly carry the required lumber to *A*. An exactly parallel argument would show that it might be preferable for the road *CA* to carry lumber from *C* to *A*, than for a shorter road, having less intermediate traffic, to be constructed with sufficient trackage to carry all this *C* lumber to some other and nearer market where it would bring no higher price.

If, however, we admit these points, we are compelled to admit that discrimination on the longer roads — but not on all the roads — may be justified. The line *CA* must meet at *A* the competition of an actual or possible shorter railroad. *A* is entitled to a price for lumber based on a rate which such a road could give. *C* may be entitled to a profit based on conditions in a nearer market and over another actual or possible railroad. The road *CA* must, perhaps, make a low rate on through business or lose the business. Yet it cannot afford to make equally low rates on its intermediate traffic, such as that from *C* to *D*. Nevertheless, the point *D* may be,

on the whole, helped rather than hurt by the possibility of some other traffic for the railroad *AC*.

§ 3

Discrimination by the Shorter or Shortest Line, when Such a Line has Comparatively Light Traffic

But there may be circumstances under which it is the shorter line rather than the longer that may properly be allowed to discriminate in favor of long-distance as against intermediate traffic. Turning back to figure 13, let us suppose that the longer line, *ABCD*, has heavy local traffic and is therefore able to charge low rates. It may charge rates between *A* and *D* which are higher, corresponding to the greater distance, than between *A* and *C* or *B* and *D*, and which are, therefore, in no sense discriminatory against intermediate business, but which are, though remunerative, very low per mile. The more direct line, *AED*, on the other hand, may run through a territory which provides, even with the addition of traffic from *A* to *D* and *D* to *A*, only comparatively light traffic, and this shorter railroad may therefore be compelled to charge rates per ton mile much higher, on the average, than are charged by the road *ABCD*. Yet if the railroad *AED* charges, on *A* to *D* and *D* to *A* shipments, rates per mile anything like as high as it is obliged to charge on *A* to *E* and *D* to *E* traffic, the long-distance traffic will go by the roundabout road. To carry a share of this longer distance traffic, the line *AED* must then discriminate in its favor.

Let us look more fully into the economic problems involved. If the long line is not discriminating against intermediate points but makes the low longer distance

rates simply because large traffic enables it to make all of its rates low, these low long-distance rates ought not arbitrarily to be raised. The railroad, if well managed, is entitled to a fair profit. The public, if large business makes such rates profitable, is entitled to low rates, and if the short line, because traffic on its rails is light, cannot get a profit except by charging higher rates per mile on its non-competitive traffic, it is fairly entitled to do this. The *A* to *D* traffic, however, will not add to the fixed charges or general expenses of the railroad *AED* and, since the distance is shorter over its line than over that of its rival, the actual expenses of moving the traffic, *i.e.* the expenses for the production of train mileage, are probably [1] less by this shorter route. Economic waste may therefore be avoided by encouraging such traffic to follow this route even though apparent discrimination must be practiced to realize that end. As a matter of fact, to allow the line *AED*, under these assumed circumstances, to make the lower rates on its longer distance traffic, will not necessarily increase, and may decrease, the disadvantage to which intermediate points on this line are subjected. The lower *A* to *D* rates very likely would be made, any way, by the longer and more fully utilized road, and probably ought to be made by that road. The higher rates on local traffic are essential to the shorter and less fully utilized road. If this shorter road can get some of the *A* to *D* and *D* to *A* business, it will perhaps be more able, rather than less able, to reduce its intermediate rates.

Likewise, if the competition between two or more rail-

[1] Not necessarily, because, as Professor H. J. Davenport has suggested to me, the more direct line may be constructed for lighter traffic, with resulting higher operating costs per ton carried.

roads is a competition of directions or a competition of locations (as represented in figure 14), there may sometimes be similar circumstances justifying place discrimination by a short line.

§ 4

Discrimination among Places, by a Railroad Competing with a Water Line

Let us turn now to another condition under which discrimination among places may be warranted. Such discrimination by a railroad may sometimes be warranted when the railroad has to meet, at certain points, and not at others, the competition of vessels operating on free waterways, *e.g.* the ocean. Consider the case of a railroad joining the three points *A*, *B*, and *C* (see figure 15), when the two more distant points from each other, *A* and *C*, are also joined by a water transportation line, and when the intermediate point *B* is not. Here the railroad *ABC* will make relatively low rates between *A* and *C* to meet the competition of the water line *AC*, but will not be compelled to make, and probably will not make, correspondingly low rates in proportion to distance and cost, or, in some cases, even absolutely, between *A* and *B* or between *B* and *C*. Is discrimination among places, by a railroad, under such circumstances, economically defensible?

If the railroad *ABC* has intermediate traffic, and the water line has only the traffic from *A* to *C* and *C* to *A*, then we have a problem not unlike that of the direct *versus* the roundabout railroad, when the latter has more intermediate traffic. In our figure, the water route is more roundabout than the rail route, but this may be

more than compensated by the usually lower cost of transportation on natural waterways. Yet the intermediate traffic on the rail line may make it the more economical route. For the extra cost of taking the

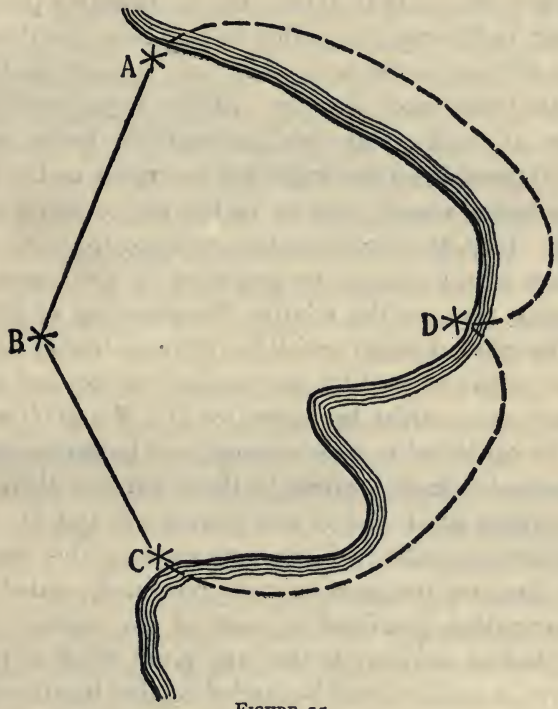

FIGURE 15

through traffic over the same railway, since this extra cost involves no greater fixed charges or general expenses, may be less than the cost, counting necessary profit, of carrying the goods by water. It will then be economically desirable that the railroad plant necessary for intermediate traffic should be fully utilized, before vessels are constructed to carry the *A* and *C* traffic, and that

these vessels should be constructed only in sufficient number to take the *surplus A* and *C* traffic.

Are the conclusions otherwise if the water transportation company, also, has a considerable amount of intermediate traffic, *A* to *D*, *D* to *C*, etc.? There is a possibility that, in this case, the ability to get part of the through traffic will enable the water line, too, to carry its intermediate traffic more cheaply. Ability to get both most of the *AC* traffic and this intermediate traffic might make it possible for the water line to employ and to fully utilize larger vessels, and to realize the resulting economies. If so, the discrimination resulting from the competition would perhaps be practiced by the water line company also, to the relative disadvantage of *D*; or else the railroad might get all the through traffic, smaller vessels might be used for intermediate traffic, and rates, because costs, might be higher for *D*. *B* and *D* would both be subjected to disadvantage, and industries would be prevented from locating in them, because there was competition at *A* and *C* and none at *B* and *D*. The objections to unlimited discrimination of this sort on both lines are the same as were previously stated [1] for discrimination practiced by each of two railway lines. The ideal of economy is that any given block of traffic between *A* and *C* should be carried by that line for which the special additional cost of carrying it is the less (or least). This may be the water line because of the greater average cheapness of water transportation; or it may be the rail line despite greater average costs, because of a less additional cost (train mileage, etc.) for hauling the special traffic in question.

Very possibly, however, competition by the rail line,

[1] See § 1 of this Chapter (V of Part III).

ABC, for the *A* to *C* and *C* to *A* traffic, will not appreciably decrease the size of ships used on the line *ADC* but only their number. Neither is there so likely to be discrimination against *D* as against *B*, nor, if it exists, is it likely to be practiced to the same extent. For *B* is a monopoly point on one line, while traffic to and from *D* may be competed for by any independent vessel. Assuming, then, that competition on the waterway is so evenly distributed as to prevent much discrimination, we have to inquire into the justification of discrimination by the railroad. At the most, the railroad could only drive the water line company entirely out of the through traffic *A* to *C* and *C* to *A*. The traffic to and from *D* would still be carried on the water in vessels of about the same size and at about the same rates. The only question is whether it is well for the community and for points such as *B* and *D*, that the railroad should take the longer distance traffic and should discriminate to do so.

To illustrate, let us suppose that the article competed for is cotton, and that the cost of carrying it, per ton, between *A* and *C*, by the water line, is $1.40. Let us suppose, further, that, at a much lower rate than this, it would not pay to operate vessels for the through traffic between *A* and *C*; that the surplus vessels, after intermediate traffic was provided for, would seek traffic elsewhere; and that at such low rates, no new ones would be built for the *A* and *C* traffic. On the other hand, the cost of carrying cotton per ton from *A* to *C* on the railroad *ABC* would, we may assume, *if this freight should pay a proportionate share towards general expenses, fixed charges, and profits*, amount to $1.50, despite the comparative shortness of the rail route, since, in general, water transportation on free and open waterways is

cheaper. Nevertheless, the variable expenses for carrying the *A* to *C* traffic by rail, *i.e.* the expenses for terminal services and for the production of train mileage, incident to this special traffic, may be not more than $1.35 per ton. Anything over that may contribute towards general expenses and towards making the net profits greater. A rate of $1.38 or $1.39, therefore, would be a rate at which the railroad would much rather take the business than lose it.

To decide whether discrimination by the railroad is economically desirable, we should consider the interests of all places and transportation companies concerned, and, therefore, of the whole community. As respects the interests of the places *A*, *B*, *C*, and *D*, it is to be emphasized that the traffic between *A* and *C* will get lower rates in relation to distance than does the traffic between *A* and *B* and between *B* and *C*, whether the railroad competes or not. The existence of the waterway insures this discrimination, if it may properly be called such. On our present hypothesis with regard to size of vessels, the competition of the railroad does not injure *D*. There are no general expenses for maintaining the water route which now have to be borne more heavily by *D*. *D* loses only relatively and in proportion as *A* and *C* gain. It is entirely possible that the discrimination against *B* would be greater if the railroad were not allowed to compete. For then it would not have been worth while even to build such a road, unless the intermediate traffic[1] could bear rates high enough to make business profitable even if almost no competitive business could be expected. It is true that the railroad, if al-

[1] Coupled with what through traffic would seek the railway by preference even at higher rates.

lowed to add to its profits by taking part of the *A* to *C* and *C* to *A* business, might not merely on that account voluntarily make lower intermediate rates. But so far as these rates are subject to government or commission control, their reduction could be secured with more apparent equity and therefore ease, if it appeared that the railroad could afford such reduction. From the point of view of *B*, therefore, or other intermediate points on the railroad *ABC*, it would hardly appear that reasonable competition by this railroad for the through traffic, should be opposed. The intermediate rates would not suffer in consequence, and might even, with effective government regulation, be made lower. *A* and *C* have something to gain from the competition and nothing to lose. As to the rail *versus* the water line, if the railroad can afford to carry the freight without loss and even with some gain to itself, at a rate so low that no one would build vessels to meet that rate, then, presumably, investment in such vessels would be uneconomical. Those who, in the absence of the railroad, would so invest, turn their control over capital to other lines, or to navigation between other cities, and it cannot be said that they lose more than the railroad company gains. If it is almost worth while to build the railroad for the inland transportation alone, and if the competitive traffic, even at rates below what a water line could profitably meet, makes it entirely worth while,[1] then it is better to have the railroad than to have the additional ships necessary to carry the *A* to *C* traffic.[2] The Federal law

[1] Cf. Taussig, *Principles of Economics*, New York (Macmillan), 1911, Vol. II, p. 374.

[2] On the other hand, it may often be desirable for railroads to charge rates on traffic moving short distances, which pay but little towards general expenses and profits, rather than have the goods carried by wagons or auto-trucks. Where

and the Interstate Commerce Commission in its interpretation of that law, are therefore to be commended for recognizing water competition when of substantial importance, as possible justification for discrimination by a railroad between places.[1]

A good illustration of the effect of water competition is found in the facts brought out in the St. Louis Business Men's League case decided by the Interstate Commerce Commission in 1902.[2] It appeared, first, that the transcontinental railroads were charging much lower rates to the Pacific Coast than to far western points not on the coast. Even points a considerable distance inland had to pay higher rates on goods from the East than did coast points. The rates to these inland points were based on the coast rates. That is, from points east of the Mississippi or Missouri rivers, rates were made to various far western points, which were the sum of the competitive rates to the coast and the local rates back to those far western points. This situation, the rail carriers claimed, was due to water competition at the longer distance points. From ports on the Atlantic Coast, goods can go to the Pacific Coast by water around Cape Horn; by water to Panama, and, after crossing the Isthmus (or

low rates are made for this reason, such low rates may be defensible from the viewpoint of national economy, even though traffic moving longer distances has to pay more towards profits. For, unless the transportation plant is already fully utilized by traffic which is more profitable, it may be better that this short-distance traffic should be taken by the railroad in question, already and properly there for the sake of other business, than that additional capital should be invested in the other facilities (trucks, etc.) for conveyance.

[1] See discussion by the Interstate Commerce Commission regarding section 4 of the law in its present form, in the Twenty-fifth Annual Report of the Commission, p. 26.

[2] Interstate Commerce Reports, Vol. IX, pp. 318–372. See also Twenty-fifth Annual Report of the Interstate Commerce Commission, pp. 27–41, for discussion by the Commission, of a more recent case involving transcontinental rates.

going through the canal, as will soon again be possible), by water up the coast; or the goods may go by rail across the United States or Canada. In consequence of the water competition, the rates to Pacific Coast ports must be low; but they need not be equally low to interior western cities. It appeared, second, that rates from Pittsburg, Chicago, St. Louis, and other cities east of the Mississippi and Missouri rivers, but not on the Atlantic Coast, were just as low to the Pacific Coast as rates from Atlantic ports, but were no lower. In the absence of water competition, rates from these interior cities to the western coast, would, in all probability, be lower than rates from Atlantic ports to the coast. While other conditions have been such that water competition has not made rates from the Atlantic ports actually lower than from these interior cities, it has made them lower in comparison with distances carried.

Here, then, we have discrimination by railroads in favor of that part of their traffic which is subject to water competition. Yet if the railroads must so discriminate to get the through business, if the through business, even at these low rates, will pay the extra cost of its own moving and something towards general expenses and profits, and if correspondingly low rates on all the intermediate traffic carried cannot be afforded, the competition by the railroads, if not carried to undue lengths, would appear to be legitimate.[1]

[1] Discrimination to the same degree may not be defensible when the railroad in question is taxed to its uttermost to carry the traffic which is non-competitive with any water transportation company. It is certainly not desirable, either for the good of the railroad or that of the public, that intermediate traffic, which has no alternative route and which can pay reasonably high rates, should be refused in order that competitive traffic, which has an alternative route and will,

The same principles apply when the competition is, in part or in whole, a competition of directions or a competition of locations. In transcontinental business, the lines leading from Chicago and St. Louis, as well as those leading from Boston, New York, etc., make lower rates to the coast than to interior western points. If they did not, goods which are produced in Chicago and St. Louis for western consumption, and which go west by rail, would be likely, in part, to be produced in Boston, New York, etc., and to go west by water. Low rates on the railroads for such competitive traffic, even though the competition is not of routes, may more fully utilize railroad plants, may, therefore, increase railroad profits, and may add to railroad facilities for intermediate points. A recent decision

therefore, pay only low rates, should be taken. If the railroad is already fully utilized, without the competitive traffic, it cannot properly seek part of this competitive traffic unless by extending its plant, — for example, by constructing an additional track. In such a case, the competitive traffic should not be sought unless it will pay, besides the train mileage and terminal costs which it occasions, a reasonable return on the extra capital (*e.g.* trackage) required (cf. M. O. Lorenz, Constant and Variable Railroad Expenditures and the Distance Tariff, *Quarterly Journal of Economics*, Vol. XXI, 1907, pp. 283–298). We need not conclude, however, that no discrimination whatever in favor of the competitive traffic can, under these conditions, be justified. For in order to carry increased traffic, it is possible that the railroad plant will not have to be increased in the same ratio. A two-track railroad, for example, will carry more than twice as much traffic as a one-track road. Consequently, even though the competitive traffic requires a greater railroad plant than would be necessary if this traffic were left to the water line, such traffic may not involve, and if the size of plant of maximum efficiency has not been reached, will not involve, additional cost in proportion to its volume; and it may perhaps be carried, with economic justification, at rates slightly lower in relation to distance than the rates between points not served by waterways. As a matter of fact, the trackage which is in any case required for intermediate traffic, often suffices, without increase, for the competitive traffic also. Though engines and cars may have to be increased, yet, in the main, the additional business sought merely utilizes existing plant more completely. Also, if trackage has been mistakenly constructed in excess of the needs of traffic which can pay reasonable rates, it may be better to accept competitive traffic which pays but little towards profit, than to refuse it.

of the Interstate Commerce Commission,[1] still more recently upheld by the Supreme Court,[2] limits the extent to which this discrimination may be carried, and limits it more closely for lines leading from the Middle West than for those leading from the Atlantic Coast. Rates from Atlantic Coast territory to western points not on the Pacific Coast must not exceed rates to the Pacific Coast by more than 25 per cent. From Buffalo and Pittsburg territory the discrimination must not exceed 15 per cent. From Chicago territory it must not be in excess of 7 per cent.[3] But the influence of the ocean route is clearly recognized by this ruling, and, as the above percentages show, some discrimination is still allowed.[4] From Missouri River points, however, such

[1] Interstate Commerce Commission Reports, Vol. XXI, pp. 329–384.

[2] See Intermountain Rate cases, 234 U. S., 476.

[3] The argument has been advanced that lines leading from the middle western cities have less of adequate economic justification for discriminating in favor of traffic to the coast, because the competition they have to meet is only or chiefly that of markets, *i.e.* directions and locations (see the Twenty-fifth Annual Report of the Interstate Commerce Commission, pp. 27–41, and Ripley, *Railroads, Rates and Regulation*, New York — Longmans, Green, and Co. —, 1912, pp. 610–626). The considerations discussed above in the text would seem to justify a certain amount of such discrimination, though not, of course, an unlimited amount of it. It must be emphasized that the competition is none the less a competition with water lines, because it is, for instance, a competition of locations. It may be truer economy that goods should go by rail and, if they do go by rail, it is probably cheaper, so far as transportation is concerned, that they should be sent from the Middle West than that they should go from the extreme East. Nevertheless, it is probably justifiable to require, as the Interstate Commerce Commission has done, less discrimination on the traffic from the Middle West to Pacific Coast points as against intermediate points, than on the traffic from the East. For while it may be plausibly contended that rates from the Middle West to the Pacific Coast should not be made lower than those from the Atlantic Coast, in view of the lowness of the latter rates, it does not follow that to intermediate far western points, to which the rates from the East are not thus exceptionally low, the rates from the Middle West should not be lower. Since the distance is less, they probably should be lower.

[4] In a decision of Feb. 12, 1915, the Commission modified this order somewhat, as to certain heavy commodities likely to move by water. This

as Kansas City and Omaha, and from points farther west, no discrimination whatever is permitted.

Before this topic is dropped, a warning should be given against interpreting too loosely the conclusions reached. It is not true that a railway is always justified in competing with a water transportation line, however low rates the latter can make. If a railroad, in order to compete with a water line, accepts rates below the actual additional cost incurred for loading, hauling, and unloading the traffic sought, it is engaged in illegitimate competition at the expense of its owners, or of the non-competitive points it serves, or both. As the Interstate Commerce Commission well expressed the matter, in one of its early cases,[1] "Rail rates that sacrifice all benefits to the carrier from the business in order to divert it from competitors by water, are destructive and illegitimate competition. . . . When, therefore, a rail carrier reduces its rates, to compete with a water carrier, below the average necessary for its own proper uses, it takes upon itself the onus of showing that the reduction does not result in actual loss, so as to impose a burden on other traffic and does not unjustly discriminate against localities that are charged higher rates on like traffic." Such illegitimate competition is likely to ruin a water line because the water line is less apt to have non-competitive business from which it can recoup itself. A railroad, on the other hand, can reduce its rates, engage in the competitive part of its business at an actual loss, and, if allowed by government to do so and not already charging

was done to enable the railroads more easily to meet competition via the Panama Canal. (See Interstate Commerce Commission Reports, Vol. XXXII, pp. 611–658.)

[1] Interstate Commerce Commission Reports, Vol. IV, p. 26 (pp. 1–30 for entire case).

all the traffic will bear, shift the burden to other and profitable parts of its line. But successful competition of this sort is not a proof of superior efficiency or cheapness. It does not mean that there is no economic waste in using the railroad by preference to the water line. It is success won by carrying, temporarily, at rates for which the competing railroad or railroads will not carry permanently.[1] It is like the practice of some capitalistic monopolies or trusts, of lowering prices in a given locality, far below cost, as a temporary measure to drive out a competitor, while maintaining elsewhere high prices. The ruin of the small competitor by such competition is no proof that he cannot produce even more cheaply than the trust.[2] The Interstate Commerce Act as amended in 1910 penalizes such illegitimate competition of railroads against water transportation companies, by providing that railroad rates reduced on traffic competitive with a water line cannot be raised again except by permission of the Interstate Commerce Commission, and that, to secure this permission, changed conditions must be shown other than the elimination of water competition.[3]

[1] Cf. Report of Inland Waterways Commission, 1909, pp. 385, 386; also Preliminary Report of National Waterways Commission, 1911, p. 10 (p. 72 of Final Report, 1912).

[2] Another illegitimate method of competition has been the attempt to discriminate in rail charges, against shippers using waterways for a part of their business. It is asserted (Report of the Inland Waterways Commission, 1909, p. 386) that this kind of discrimination existed in France until the government put an end to it. Most shippers are dependent upon railways to reach at least a part of their customers. They can often get along without competing waterways, but seldom without railways. If the railways can, with impunity, deny them reasonable rates or fair service, recalcitrant shippers wishing to use waterways can frequently be brought to terms, and compelled to agree to ship all their output by rail.

[3] Section 4 of the amended act.

§ 5

Discrimination among Places, by a Railroad Competing with Local Self-sufficiency

Discrimination among places can be defended as economically good, in certain cases where a railroad is pitted against local self-sufficiency. Suppose a railroad from distant coal fields about *A* leads into a region, *C*, where coal can be produced, but at a somewhat greater expense than at *A*. (See figure 16.) Suppose the cost

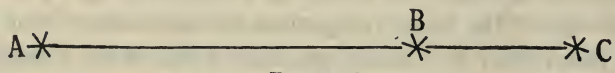

FIGURE 16

at *C* to be $6 a ton and at *A*, $4.20 a ton; and suppose that coal cannot be produced at *A* for sale in *C*, unless the *A* coal producers receive at least this $4.20. A lower price would, we assume, cause *A* producers to desert the poorer mines to such an extent that there would be no exportable surplus. The populations at *A* and at *C* would then both be more self-sufficient than if *A* sent coal to *C*, and received other goods in exchange. Under these assumed circumstances (and, where distances are great, similar circumstances may exist in fact), the rate charged for carrying the coal from *A* to *C* cannot exceed $1.80 a ton. The road *ABC* must get, it may be, on the most of its coal traffic, a rate corresponding to $2 a ton for such a distance as *A* to *B*. Otherwise, the company cannot pay expenses and a fair profit. Nevertheless, $1.80 or even $1.75 a ton, for carrying coal from *A* to *C*, will pay extra costs incident to moving, and leave a small amount towards other ends.

Under these circumstances, the railroad is better off to

get the traffic. The consumers at *C* have something to gain and nothing to lose from having the coal brought from *A*. Any resulting price reduction benefits them as much as or more than it injures producers at *C*. The coal producers at *A*, where, we assume, natural advantages make the labor cost of production lower, gain at least as much business from the opening to them of the market at *C*, as the producers at *C* lose. Intermediate points, such as *B*, will not have to pay any higher rates than they would have to pay anyway, and it may be possible, because of the through traffic, to make the rates charged to the intermediate places less than would otherwise be necessary. Perhaps, were it not for the through traffic, the railroad would never be constructed, and the intermediate points would fail to get any service at all. The railroad plant is more fully utilized by taking the long-distance traffic. It may be desirable, therefore, that *C* should be supplied with coal from *A* and that the railroad *ABC* should discriminate to bring about that end.

§ 6

Discrimination in Favor of Export Traffic

We have seen that competition between a number of transportation lines, causing, on all of them, discrimination against non-competitive points, involves economic waste. But if the system of discrimination exists, the interests of any one line (or group of lines), and of the territory it serves, may be more promoted by its engaging in the competitive traffic at the rates competition determines, than by its relinquishing such traffic to its rivals. For some profit is better than none, and may make possible service otherwise unattainable by intermediate

points, or lower rates than these points could otherwise enjoy.

The same kind of argument tends to show that discrimination by the transportation lines of a country, in favor of goods exported as against goods sold in the home country, may be economically profitable for that country even if unprofitable from the viewpoint of world economics. We may illustrate the various possibilities of national gain or loss by reference to a case decided by the Interstate Commerce Commission in 1899.[1] It appeared, in this case, that the export rates upon grain, not only through the Gulf ports (by which route the argument regarding roundabout lines might apply), but even through the Atlantic ports, including New York, were, at times, lower than the rates upon grain carried to the same ports for domestic consumption. Thus, during October of 1896, the rate on corn from Chicago to New York was 20 cents for domestic consumption as contrasted with 15 cents if for export. Discrimination of the same sort was shown to have sometimes been practiced in favor of exported wheat.

Such discrimination we may show to be a gain to the United States as a whole, on the following hypotheses: first, that these low rates cover at least the additional cost incident to carrying the freight in question, *i.e.* terminal and production-of-train-mileage expenses imposed by this particular business; second, that these low rates are all which the traffic will bear without being,

[1] Interstate Commerce Reports, Vol. VIII, pp. 214–276. Attention should be called to the fact that under section 4 of the original Interstate Commerce Act, as it had been interpreted by the Supreme Court (162 U. S., 197 and 168 U. S., 144), the Commission did not have the power to correct the discrimination in favor of exports complained of. The amendment of 1910 has given it more effective control over situations of this sort.

not merely diverted from one American transportation company to another, but, so far as American railroads are concerned, in a considerable degree lost, *i.e.* that the railroads must make the discriminating rates, to get the largest returns from the business. Under these circumstances, low rates made on export wheat, for instance, by American railroads, would mean a net gain.

At first sight this discrimination may seem like a bounty on exportation. But there is a very distinct difference which destroys the value of any such comparison. A bounty is a clear loss to a country's taxpayers. At their expense, it turns industry into a line which, otherwise, it might not follow and which, therefore, is likely to be a nationally unprofitable line of industry. But the discrimination in freight rates, favorable to exported goods, is not, on our hypothesis, a direct loss to any class of persons in the community. Even if any class of persons suffers indirect loss in consequence, others in the country gain as much or more. The railroads, by making the discrimination, secure traffic which they otherwise could not get, and are, therefore, able, since they are operated under a law of decreasing proportionate expense, to pay greater profits.[1] The railway plant may be, thereby, more fully utilized. Even if, without low export rates, it would not pay for wheat production to be carried on to the same extent, for export, the fact that, by carrying it on, the railway plant already constructed for domestic business can be more fully utilized, makes the business of wheat production for export an economical and desirable business. If the railroads are not allowed thus to discriminate, within limits, and if, in consequence, the production of wheat

[1] Or, if compelled, to reduce average rates.

for export is not carried on, or is carried on to a much less extent, then the railway plants will be likely to be less utilized, to the disadvantage of the railways of the country, and of the general public. For it is reasonably probable that any other industry or industries, to which those who would have produced wheat for export turn their hands, will involve less transportation than the wheat, and perhaps at rates no more profitable. Such another industry will be, in part, production for a local, or at any rate a home, market. The essential fact to remember, is, that since railroads are operated under conditions of joint cost, the carriage of export grain, even at low rates, may help to make the railroads pay. It may help, therefore, to make possible the building of railroads where they might not otherwise be built, and service to the community, which might not otherwise be available. It may make possible a lower average scale of rates [1] and so tend to facilitate greater development

[1] The argument by which the sale of goods abroad by tariff-protected American manufacturing companies at prices lower than those charged at home for the same goods is sometimes defended, bears a superficial resemblance to the argument in favor of discriminating rates on export traffic. It is said that the prices at home of such manufactured goods may be no higher, since the additional supply produced for export may be produced, by more fully utilizing manufacturing plants, at less proportionate cost. In other words, the lower price abroad of American goods, if made necessary by the competition of cheap foreign produced goods, is not at the expense of the American consuming public.

But there is at least one very important difference between the two cases. Transportation within the United States, and to the ports and boundaries of the country, must be provided by labor carried on within the United States and by transportation plants located here. Absolute freedom of trade would not enable us to utilize the labor of foreign railway employees in carrying American goods to ports of export. Our railways may, indeed, be the most efficient in the world; but whether they are or not, we cannot substitute foreign railways for them. Manufactured goods, on the other hand, can be supplied to us directly by our own labor and capital, or, if trade is not too greatly interfered with, by labor and capital engaged in production in a different part of the world. An alternative therefore exists for us in the case of such goods, that does not exist in the case of transportation service. Protection shuts off that alternative.

of other industries also, and greater geographical division of labor within the exporting country. If the greater business makes lower rates a possibility, the stimulus of competition, or the pressure of the public through its commissions, may make these potential lower rates actual.

Let us consider the effects of this sort of discrimination on the different classes of Americans concerned. We may at once cancel out the effects upon American producers and upon domestic consumers of changes caused on the price of grain consumed at home. If the railroads, by low rates on export grain, make it possible for American farmers to get more for their wheat sold abroad (because a less charge for transportation is subtracted from the foreign prices), and if, consequently, these

If American factories, in any line of manufacture, produce goods at such great expense that they must get higher prices from domestic consumers, in order to remain in business, than they are compelled to accept on that portion of their goods which they sell in foreign markets, then it is probable that, except for the tariff, foreign producers would undersell them in the United States, that their high prices at home are, therefore, at the expense of American consumers, and that the protected industry (or industries) is of the parasitic kind and should never have been encouraged.

Even if the tariff is, in any case, to be maintained in favor of a given line of manufacturing, it is not impossible that the sale of surplus goods abroad, for their bare additional cost of production to each factory, will increase the price or prices which home consumers must pay. Suppose that there are 10 domestic factories of about the same capacity, and that each, in order fully to utilize its capacity, sells $\frac{1}{10}$ of its total output abroad at a low price, while covering fixed and general expenses mainly from the money received on goods sold at home. Is it not evident that if the foreign business were not sought and if the home demand were taken care of by 9 factories, the 10th not being built, then total manufacturing plant might be just as fully utilized, and that the benefit in reduced price might then go to domestic consumers? Unless the size of plant of maximum efficiency was a monopoly size, discrimination in prices in favor of foreign consumers could but add to the injury to home consumers caused by the tariff. But in the case of railways, the alternative of a smaller number of plants, though it may exist, probably does not exist to the same degree. Since the transportation service required in each section of the country must be provided by transportation lines in that section, most of the existing trackage, perhaps all of it, would equally be present whether export traffic requiring discriminatingly low rates were sought or not.

farmers get higher prices for the wheat which they sell at home, their gain from wheat sold at home is presumably just equal to the consumers' loss. No net effect is produced on the national wealth.[1]

Our problem narrows itself down, therefore, to a consideration of the effects of this kind of rate making, on American railroads, and on American producers in so far as they are producers for export. Obviously, a reduction of railroad rates on exported grain could not injure American producers. Whatever might be true of market conditions abroad, and however market price abroad of American wheat might be determined, reduction of these transportation rates would not reduce the foreign price by more than an equivalent amount. It could not induce or compel the American farmer to accept a net price, after subtracting low transportation charges, even lower than if these charges were high. The whole difference between high and low transportation rates might or might not be subtracted from the price to the foreign consumer, but, certainly, more than that difference the foreign consumer could not hope to gain. To assume a greater gain for the foreign consumer would be to assume that the American farmer would send more wheat abroad at a lower net price than at a higher net price. The American farmer, then, cannot lose by a reduction in rates on wheat for export, and he must gain, on wheat consumed in the United States, whatever the domestic consumer loses. If, therefore, the railroads in the United States gain enough by the consequent greater traffic, to make the low export rates more profitable to them than higher ones would be, the net effect is an

[1] If inflow of money, because of greater exports, raises other prices, the effects are again two-sided, and the above conclusion remains true.

increase of national prosperity. Since the railroads secure their larger return only because of the greater traffic, they can gain from lower rates only by making wheat production enough more profitable to insure larger crops and more exportation. In practice, then, the low rates can be profitable to the railroads as a whole and, therefore, to the nation as a whole, only if the difference between low and high rates on exported grain goes in part to American producers, and not entirely to foreign consumers.

A parallel argument may sometimes justify lower than average rates for the carriage of American goods produced in the interior and marketed on the coast or other boundary, when these goods meet, in coast or border cities, the competition of like goods produced abroad. So long as these lower rates cover the train mileage and terminal expenses occasioned, and something towards general expenses or profits, American railroads can better afford to carry the goods than not to carry them. Interior producers and border consumers may both be benefited.

Discrimination in favor of exports (or of interior-produced goods marketed on the border) may easily, however, result in national loss to the country whose railroads thus discriminate, since it may result in loss to the railroads. The railroads of a country, acting by common council, would not make discriminating reductions in export rates, which would reduce their revenues. But the same railroads, acting independently, would and do make such reductions, each fearing *diversion* of the traffic to its rivals. Each one dares charge only what the traffic will bear *without being diverted*.[1] And since export traffic

[1] See Chapter II (of Part III), § 6.

is peculiarly subject to competition of routes, what the traffic will bear without being diverted may be very low rates. When the railroads of a country are thus compelled, by competition with each other, to carry export traffic which pays less than its proportionate share towards general expenses and profits, even though this traffic might be made to pay more nearly its proportionate share, there is, in effect, a bounty given to this export traffic. In the long run, if the loss to railroads, in revenue from carrying goods for export, is extensive, intermediate rates must be higher, since railroads will not be built without reasonable prospects of gain. But higher intermediate rates must lessen the profits of internal commerce and tend to discourage it. We have, then, a bounty tending to encourage exports, but imposing additional expense on internal trade, and so turning productive effort out of the channels it would naturally seek, into other and presumably less profitable channels.[1] If the low export rates yield more towards general expenses and profits than higher ones would yield, they are not analogous to a bounty or bounties, and are economically desirable from the standpoint of the exporting country (though not from the standpoint of other countries producing the same goods and competing in the same markets). If the low export rates yield less towards general expenses and profits than higher rates would yield, and, at the same time, yield less than their pro-

[1] To the argument that such discriminating rates might benefit the producers of wheat more than they would injure the railroads (the latter being partly compensated by larger traffic) and might thus bring an average gain, it is to be answered that if wheat production were thus made more profitable, it would be carried on to a greater extent, until, because of consequent lower prices or more intensive cultivation, or both, it would be, at the margin, little or no more profitable than the taxed and discouraged industries at the expense of which it was subsidized.

portionate share towards these expenses and profits, their lowness amounts to a bounty or bounties, and is economically undesirable. It is probable that only in rare cases will discriminatingly low rates in favor of export traffic actually yield more net revenue to the railroads as a whole, than reasonable but not discriminatingly low rates would yield. It is probable, therefore, that discrimination in favor of exports (or in favor of goods carried to border cities where the competition of foreign goods is met) is seldom economically desirable.

On the other hand, exceptionally high rates on exported goods are to some extent comparable, in their economic effects, to high export duties. If the goods exported are goods which foreigners can get nowhere else, the burden of the high rates may be borne largely by them and lower rates than would otherwise be charged may be thus made possible on other traffic. But usually the goods can be secured elsewhere, and the high rates are likely to act like a high restrictive export tariff,[1] in diverting the industry of the exporting country away from the most profitable into less profitable lines.

§ 7

Discriminations between Directions

We have now to consider a kind of discrimination of a somewhat different class from the discriminations which we have so far discussed, viz., discrimination between two opposite directions. Goods are frequently carried, both by rail and water, more cheaply in one direction than the other. The principal reason for this discrimination is an excess of freight moving one way, compared with

[1] See Part II, Chapter IV, § 3.

the movement the other. Freight moving from territory where industry is chiefly of the extractive kind usually has large bulk in proportion to its value. The equivalent value in higher grade goods, which is carried back in exchange, occupies less space. The cars (or vessels) returning may not, therefore, be loaded to their full capacity. Often some returning cars are not loaded at all. Yet they must be returned, even if empty or partially so, for the sake of the outgoing freight. Since the cars have to be taken back, anyway, and since, therefore, the additional cost to the railway is relatively little greater when the cars are loaded (or to a navigation company when the vessels are loaded), it is preferable to carry the freight for a low charge, rather than not to carry it at all. If there is private monopoly or government ownership, the excess of empty cars going in a given direction may not lead to discrimination in rates, favoring that direction, though it is likely to have this effect, as to some of the business, even then; but if there is competition, such discrimination will certainly be practiced. The return trips will be the problem. Each company will be ready to make very low rates, if necessary, on the back hauls, rates which do not even cover the cost of the trips, so long as these rates more than cover the extra cost of moving loaded cars, over that of moving empties; for otherwise the other road or roads will get the business. The freight going in one direction may so tax the facilities of all the roads that rates on this freight will be fairly high; while the scarcity of freight to be carried in the opposite direction, relative to facilities, will induce intense competition and make rates very low. So, in ocean transportation, if a country exports a large quantity of bulky goods and imports relatively less, outgoing rates

will be high, and rates of transportation on imports low. In the opposite situation, a country's imports will cost more to carry and its exports somewhat less.[1]

It is economically desirable, on the whole, that such discrimination should take place. It cannot be said that discrimination in directions is arbitrary or in violation of the principles of cost. For the cars (or ships) would have to be taken to destination and back again, even if freight moved in but one direction. If some freight can be got to move the other way, it must be admitted that part of the cost — so much as would be required to return the cars empty — is joint, or even pertains to the movement in the direction of the bulkier traffic. It would have to be met anyway, and cannot properly be said to be due to the taking of return freight. Freight moving in the direction which the empty cars have to take should be carried at rates little above the difference between the cost of hauling the cars empty and the cost of hauling them full, plus terminal expenses, etc., rather than to be refused. Not to carry such freight is to waste labor and facilities which might be utilized, and to leave less than it might be, the total national wealth. On the other hand, freight moving in the opposite direction, to the extent that it involves hauling cars (or taking ships) which must return empty, really imposes upon the labor force of the community the cost of hauling the cars both ways, and should not be taken at rates less than sufficient to cover this cost. Otherwise, freight may be carried for less gain to the community than it imposes cost upon the community. If, therefore, there is so much freight ready to go in one direction even at rates which pay

[1] Cf. J. R. Smith, *The Organization of Ocean Commerce*, Philadelphia (Publications of the University of Pennsylvania), 1905, p. 17.

enough to cover the return haul of the cars empty, that returning freight cannot be secured at the mere additional cost of hauling loaded cars, to fill these empties, then no freight ought to be taken in the direction of the denser traffic, which will not cover the return-of-cars cost, nor can be so taken without risk of economic waste. So far as discrimination of directions causes a greater equalization of opposite flows, it serves to utilize more fully the facilities which are utilized at all, without proportionately increased expense, and so makes the national capital and labor force more productive.

§ 8

Summary

In this chapter our concern has been mainly with discrimination between places, in so far as this discrimination can be defended, on economic grounds, as conducing to national prosperity. We saw, first, that discrimination by a roundabout line in favor of through traffic and against intermediate traffic, might be economically defensible. It may be the truest economy that some of the through traffic should go by a roundabout line, yet this through traffic is entitled to rates as low as a more direct line could profitably make. Also, though the roundabout line cannot always afford to make correspondingly low rates on intermediate traffic, it may be to the advantage of intermediate cities on its line that it should take the through traffic at rates which at least help pay general expenses and profits. The possibility of getting part of the competitive traffic encourages the building of roundabout lines which bring intermediate points into touch with the competitive points.

But when charges on competitive traffic are so low as to necessitate discrimination against intermediate traffic on direct roads as well as indirect, there is economic waste, and competitive points are receiving advantages to which they are not properly entitled. If government regulation is to attempt to raise, in this regard, the plane of competition, the ideal is to prohibit discrimination against intermediate points on direct roads, while allowing roundabout roads to discriminate to a limited degree. The aim should be so to balance the limitations on competing roads as not to interfere with the economical routing of freight or with the building of roundabout lines in cases where these are more needed. In no case should a roundabout line be allowed to carry competitive traffic for less than the additional cost involved, or to make rates on non-competitive traffic so high as to get more than a reasonable return, from that traffic alone, on the capital required for it. In many cases the discrimination allowed to the roundabout line should be much less. The carrying of a part of import and export traffic by roundabout routes may be defended as not economically bad, even though it involves relatively discriminating rates by these longer routes in favor of import and export freight.

But, on the other hand, if traffic on a direct road is relatively light, so that its average rates must be high, while a more roundabout road has heavy traffic and low rates, the direct road may be the one which should be allowed to discriminate in order that it may carry a share of competitive traffic.

Discriminating rates by a railroad or railroads may be justifiable in cases where the low rates favor points competitive with water lines as against points situated

on rail lines only. The railroad plant is desired for the intermediate traffic alone. The additional cost of carrying competitive traffic which could go by water may be so little that it is more economical to carry it by rail than to construct the additional ships necessary to carry it. A consideration of the effect of this discrimination, on the various interests concerned, strengthened our conclusion that such discrimination might often be defensible and even desirable. Its practice is seen in the case of transcontinental rates made by American railroads, favoring coast to coast and nearly coast to coast transportation as against intermediate. But a railroad which carries goods for less than the bare additional cost of so doing, in order to ruin a competitor by water, is engaged in illegitimate competition.

Discrimination may sometimes be practiced with desirable results in favor of transportation which is competitive with local self-sufficiency. If goods can be carried to a given point and sold there for less than the cost of local production, there is a saving, even though these goods pay very little more than the special cost incident to their transportation, *i.e.* even though they contribute very little towards general expenses and profits. If the plant is there, it is better to utilize it on these terms than not to utilize it.

The total wealth and income of a nation may be increased, under certain circumstances, if its railroads discriminate in favor of export traffic, or, likewise, in favor of traffic to border cities where the competition of imported goods is met. Such discrimination is advantageous when the lower rates yield, for native railroads taken as a whole, so much larger traffic than higher rates, as to make the net earnings of transportation greater. To

thus increase the export business of the railroads, the lower rates must yield some benefit to producers for export. So far as diversion of the goods to a foreign market raises domestic prices of those goods, domestic producers gain as much as domestic consumers lose. There is a net national gain, though rival producing countries may lose. But when competition between a country's railroads brings discrimination in favor of export traffic which would otherwise yield larger returns, the discrimination amounts to a bounty on exports at the expense of the railroads and, perhaps, ultimately, at the expense of other trade. Industry is turned from more to less desirable channels. Discrimination against exports, unless the exporting country is the only considerable source of supply, is likely to interfere with a profitable export trade, and turn the nation's industry into less profitable lines.

Discrimination between two opposite directions may result from an excess of bulky traffic moving in one direction, over that moving in the reverse direction. This discrimination is economically desirable, within reasonable limits, since it causes fuller utilization of the facilities required. When cars (or vessels) must be taken to a given point, whether empty or full, it is better to accept traffic at little more than the added cost of taking them full, than to refuse this traffic.

CHAPTER VI

Relative Rates on Different Goods

§ 1

Why Rates on Competing Goods should be in Proportion to Transportation Cost

Having completed our discussion of local discrimination, we have now to consider discrimination, if we may here also use the term, in the rates charged for carrying different kinds of goods. As in the two previous chapters, we shall apply the test of general economic welfare to transportation practices.

It is not always easy in any given case, perhaps not always possible, to decide how much one kind of goods should be charged, relatively to the charge made for carrying other kinds. Nevertheless, we can lay down important principles to which the relation of rates should conform. In looking at the matter of relative rates among different goods, from the point of view of general community welfare, the following principles are those which, it is believed, should be kept particularly in view. In the first place, the rates charged should be such as will, all things considered, get industry into and keep it in the most profitable lines or channels. Second, the rates charged should lead to the most economical location of each kind of industry. In the third place, these rates should be the ones which will result in the com-

pletest profitable utilization of the transportation plant. Let us consider these principles in this order.

That industry may be kept, on the whole, in the most profitable lines, some regard must be had, in carrying goods, to the cost of carrying. A transportation company will naturally consider costs of carriage in fixing its rates, even though part of these costs cannot be allocated. At least it will refuse to transport any goods, during any considerable period, for less than the special or additional cost incident to carrying them. Many things will pay more. But nothing will pay less. Cost of transportation is, therefore, one element in fixing the relative charge on different kinds of goods.

Under the head of cost come many special considerations, for example, the hazardous nature of the service. Upon such articles as gunpowder, dynamite, nitroglycerine, etc., higher rates are likely to be charged than upon many articles of similar size, weight, and value, which are non-explosive. Not only may the explosives themselves be destroyed in transit, but they may destroy other property. The greater risk in carrying them is in the nature of a cost.

Space occupied, or size and bulk of freight carried, is another factor in cost. Even if the goods to be carried are extremely light, the fact that they require large space necessitates the use of cars in perhaps considerable numbers. This means that a considerable weight of trucks, car floors, walls, etc., must be carried to accommodate the freight. It means, also, that the car repair account will be larger, as well as that more cars are required on which interest should be earned. It follows that space occupied determines, in part, the cost of

carriage. The weight of goods to be carried is, of course, also a factor in cost, and tends to affect the rates charged. Goods which are liable to spoil in transit, or which, for any other reason, require special care, cost more to carry. All these elements should and largely do influence railroad officials in their classifications of freight.

A special case is found in the shipment, on water routes, of goods which can be used as ballast. Such goods serve, in part at least, as an assistance (by steadying ships) in the carriage of other goods. By so doing they may be said to partly pay their own cost of transportation, and the *net* cost of carrying them may be said to be low. A low rate of transportation can, therefore, be afforded by ship-owning companies on such goods. British coal is said to be thus carried, as ballast cargo, at low rates.[1]

The principle that rates should be such as to keep industrial effort in the channels most profitable to the community requires that rates on different commodities shall be in reasonable proportion to cost of carrying, whenever these commodities can be regarded as competing goods, *i.e.* as goods which may be substituted for each other by consumers or other purchasers. Examples are Pearline and laundry soap,[2] Wheatena and Cream of Wheat, brick and stone for building. It will be seen that if the cost of carriage is the same, a higher charge for carrying stone than for carrying brick may involve economic waste, since it may cause brick to be used for building in places where stone would be on other accounts

[1] J. R. Smith, *The Organization of Ocean Commerce*, Philadelphia (Publications of the University of Pennsylvania), 1905, p. 17.

[2] See Interstate Commerce Commission Reports, Vol. I, pp. 465–479.

more desirable. If the higher rates merely paralleled a higher labor cost of transportation, uneconomy could not be alleged, since these rates would but bring to the attention of builders a real economic disadvantage of using stone. Without the higher rates, the public would be unduly encouraged to use materials which, in so far as transportation is concerned, cost more than others. But if the economic disadvantage does not exist, rates which make it seem to exist, and which make men act as if it existed, are economically bad. The decision what to use among competing goods, and therefore how much of each kind of such goods should be produced, and, therefore, *the lines of production which industry should follow*, ought to be determined on the basis of all the advantages and disadvantages of each kind of such goods, including cost of production and cost of carriage. In order that all of these elements may enter properly into the consideration of the users, and so exercise their due influence on the lines of activity of the producers, the users should be charged for each kind of goods proportionately to the actual labor (and waiting) costs, including transportation, of providing them with the goods, just as the consumers realize gains from these goods proportionately to the serviceability of each. Section 3 of the Interstate Commerce Law prohibits undue discrimination not only in favor of any locality or person but also in favor of any particular description of traffic. In determining, in any specific case, whether the discrimination complained of is undue, the Interstate Commerce Commission does not fail to consider the competitive relations of the goods discriminated against.[1]

[1] *Ibid.*

§ 2

The Proper Relation of Rates on Finished Products to Rates on Raw Materials

In order that there may be the most economical location of different manufacturing industries, regard must be had to the relative charges on raw material and on finished product. For example, consider the rates on wheat compared with those on flour and the rates on lumber compared with those on furniture. If the transportation charge on wheat from the West were much lower than the charge for transporting flour, then all the milling of flour for eastern use would be done in the East. In the Export Rate case,[1] it was shown that the rate on wheat for export was considerably lower than on flour. This would tend to stimulate milling abroad, since it would be cheaper to pay the low rate on wheat than the high rate on flour. On the other hand, a much lower rate on flour than on wheat from the West would perhaps ruin eastern millers and cause flour to be manufactured almost entirely near the wheat fields. The milling should be done, of course, where all the facilities and conditions, including actual labor cost of transporting the wheat, and cost of transporting the flour, are the most favorable in relation to the facilities and conditions for other industries. The transportation companies should not unreasonably discriminate in favor of either the wheat or the flour. Flour has more value, and may, therefore, involve greater risk of loss. Possibly the cost of carrying may be greater.[2] It may be permissible that the charge for transporting flour should

[1] Interstate Commerce Reports, Vol. VIII, pp. 214–276.
[2] *Ibid.* pp. 244–246.

be somewhat greater than the charge for transporting wheat. But if so, it should be greater only to the extent that such special facts justify. Such is the position which the Interstate Commerce Commission takes in applying the law to specific cases.[1]

Perhaps a sharper distinction between raw material and finished product is found in the case of lumber and furniture. Furniture is much more valuable and is more liable to breakage. It occupies, generally, more space in proportion to its weight. A higher charge on the furniture is therefore entirely proper. But the relation between the charges for lumber and furniture transportation should not be more favorable to lumber than such considerations warrant.

§ 3

When Rates may Properly be Lower on Some Kinds of Goods than on Others, in Relation to Cost of Carriage

We have now to give attention to the third test of relative rates charged for carrying different goods, viz., the question of completest utilization of transportation plant. The desirability of utilizing transportation plant as completely as possible may justify a lower rate on the product of one industry than on the product of another, even though the special or additional cost incident to carrying them is the same for both. For the one kind of goods may require a low rate in order that it shall be carried at all for any great distances, while the other kind may be able to pay a higher rate. Thus, a high rate to a given place, on goods which could be produced locally, would mean that the transportation com-

[1] *Ibid.*

pany charging such rates might get no traffic at all in those goods, whereas it could charge reasonably high rates upon goods which had to be secured from elsewhere, without sacrificing traffic.[1]

Even some goods which are not locally producible may have to be brought to a market cheaply, because otherwise locally produced substitutes will be used. The rate on building stone carried to a given locality may need to be low because brick can be produced there, and because, consequently, if the rate on building stone is not low, it cannot be carried. The low rate makes possible a larger total traffic, a more complete utilization of transportation plant; and, therefore, if the rate charged pays anything above the special cost of carrying, the traffic is worth while. It is better that some goods should be carried, even at less than average rates, if the charge amounts to something over the special cost of carrying, than that these goods or substitutes for them should be produced locally, and the transportation plant be incompletely utilized. The revenue so yielded to transportation companies makes possible, if they will it or can be compelled to it, lower charges for the carrying of other goods, than they could else afford; or it makes possible, because profitable, the construction of transportation lines which otherwise would not pay, and, therefore, makes possible transportation service for other goods also, between points where such service would not otherwise exist.

An analogous argument applies, to some extent, in defense of low rates on railroads favoring goods which are especially likely to go by water. For if a railway plant is necessary, anyway, between two given points, and is

[1] Cf. Chapter V (of Part III), § 5.

desired for certain kinds of through traffic, it may be better to use it for some other through traffic also, rather than to invest additional social capital in ships.[1]

There is nothing in the above conclusions inconsistent with the conclusion reached earlier in the chapter, that arbitrary discrimination between goods is uneconomical. Lower rates proportionate to special cost of carriage, on stone for example, than on most other things, have been justified only if they increase traffic without proportionately increasing cost. Lower rates on building stone, proportionate to special cost of carrying, than on brick, between two given points, would not thereby be justified, since such a relationship of rates would probably mean, not that more goods would be transported, but that building stone would be carried *instead of brick*. Lower rates on both than on most other goods, necessitated by a possibility of local production of either, would be justified. The question to be considered in each case is whether total traffic is considerably increased, or whether freight of one kind is substituted for freight of another kind. In some cases, of course, goods are used for different purposes, but are substitutes to a limited extent. Rates should then be fixed with reference to both the above principles and with a view to a balance of advantages.

Similarly in the case of relative charges on raw material and finished product. Except in so far as there may be non-transportable waste, discrimination in favor of either cannot be expected to result in larger total traffic, but only in traffic of one kind instead of traffic of another kind. High rates on flour mean that wheat will be transported instead. High rates on wheat mean

[1] *Ibid.*, § 4.

that flour will be transported instead. The situation is complicated, of course, in the case of certain materials, such as leather, which are raw material for many different articles, *e.g.* shoes, suit cases, harness, etc. Since the leather is raw material for one of these uses only to a limited extent, the transportation rate may properly be determined in part by other considerations than its relation to a single finished product.

But considerations regarding utilization of transportation plant may justify, in some cases, somewhat lower rates per ton on raw material than on finished goods, even though the special or additional cost per ton, incurred because of carrying the raw material, is no less. Suppose that, in the production of certain kinds of finished goods, much of the raw material necessarily goes to waste, so that the total weight of material is much less after the process of manufacture is complete. The same rate per ton on the finished goods as on the raw material would then encourage manufacture of these goods near the source of the raw material, instead of near markets far distant from the raw material. A transportation company could, however, in some cases, well afford to make somewhat lower rates per ton on the raw material, if, by so doing, it could get the much larger number of tons to carry. The result would be a more complete utilization of transportation plant and a greater net profit. The rate on raw material should be high enough so that, if more of it has to be transported, the total charges would be greater by enough to cover the greater special cost of its transportation. In other words, the rate on the raw material should at least be high enough so that the net profit from its transportation would be as great as it would be if the finished

product were carried instead. Otherwise the manufacturing industry served would tend to be located far from the raw material, at the expense of the transportation line and at a greater labor cost for transportation, even though the far location offered no advantages sufficient to counteract this loss. If the manufacturing industry itself had to bear this transportation labor cost in the freight rates it paid, it would not locate far from the raw material needed, except for compensating advantages. But to make the charge for transporting raw material as great per ton as for transporting the finished product, when to do so means to get a less total traffic, may unduly stimulate the location of manufacturing near the raw material under circumstances such that, all things considered, including the matter of utilization of transportation plant, location of some factories near markets far away from the source of raw material would be more economical.

The desirability of utilizing the transportation plant is the consideration which justifies, economically, relatively lower rates on cheaper goods and relatively higher rates on more valuable goods,[1] when the special or additional cost of carrying them (*i.e.* terminal and train mileage costs incident to taking them) is the same for both. Valuable goods can usually be charged more by bulk or by weight, without the price of these goods being raised by any appreciable per cent., and, therefore, without the sale of the goods in distant markets being destroyed or seriously limited. But rates on coal, lumber, brick, stone, and other low-grade goods cannot be, for

[1] Hadley, *Railroad Transportation*, New York (Putnam), 1885, p. 112; Ripley, *Railroads, Rates and Regulation*, New York (Longmans, Green, and Co.), 1912, p. 110.

shipments over long distances, correspondingly high per ton mile. If they are, the prices of the goods will be raised so much that consumers in distant markets will supply themselves with the desired goods or with substitutes from nearer home, and the railroad transportation plant may not be as fully utilized as it profitably might. Ten dollars a ton for transportation to a given market, added to the price of shoes, makes little difference to the average purchaser of one pair, since the price of one pair (supposing it to weigh two pounds) would have to be greater by just one cent. Nor would so slight a proportionate addition to the cost of getting the shoes from a distant factory be likely to make local production preferable where other industries would otherwise be more profitable. But ten dollars per ton added to the price of coal would very greatly diminish the transportation of coal, since every other practicable method of getting heat or power would be likely to be resorted to in preference to purchasing coal from a distance at a price of from $12 to $15 a ton. In the case of low-grade goods, the traffic will often bear but a low rate without being destroyed. In the case of high-grade goods, the traffic will bear, as a rule, higher rates.[1] An addition to rates, per ton or per carload, does not, within wide limits, so much affect the total transporta-

[1] The view that competition between two or more railroads, by putting emphasis on what the traffic will bear without being *diverted*, or, as the writer then phrased it, on *relative* responsiveness of traffic, would tend to keep rates on valuable goods about as low in relation to cost of carriage as on cheaper goods, was set forth in the *Yale Review*, May, 1907, in an article on The Basis of Rate Making as Affected by Competition *versus* Combination of Railroads, pp. 83–85. Cf. Pigou, Railway Rates and Joint Costs, *Quarterly Journal of Economics*, August, 1913, p. 691. But, as is shown in the text, where the competition is with local self-sufficiency the lower grade goods are likely to be accorded lower rates.

tion business. It is desirable that the transportation plant should be fully utilized, so far as it can be without loss, and it is therefore desirable that rates on low-grade goods should be low enough, provided not unprofitable, to get the business. Considerations of profit are likely to cause railroad companies to put these low-grade goods into the lower classes of freight, on which the rates are most reasonable, or even, in many cases, to carry them at special "commodity rates" instead of at regular "class rates."

It may be added that the practice of charging more for carrying valuable than for carrying cheap goods is not confined to railroads but is observable also in water transportation on regular-line vessels,[1] since these vessels carry cargoes made up of many different kinds of goods.

But the question may arise, how the relation of rates charged for the transportation of different kinds of goods should be fixed, if the profits of a transportation company are excessive and the public is entitled to a lower average of rates. Should there be a blanket reduction applying to all goods equally, or should some rates be reduced more than others, or should some rates be reduced and others not?

Let us suppose that the profits on the capital investment of a certain railroad are 20 per cent. a year and that it is thought just to reduce rates and, therefore, profits, by public authority. We may assume that the only goods carried by this railroad are wheat and coal, that the rates charged on each are the rates yielding the largest net returns, and that the traffic offered at those rates does not fully utilize the railroad plant.

[1] J. R. Smith, *The Organization of Ocean Commerce*, p. 46.

The question then is: on what goods and to what extent shall reduction be required? It may be that a reduction in the rate charged for carrying wheat, of 10 per cent., would increase the traffic in wheat by but 1 or 2 per cent., whereas, a reduction in the rate charged for carrying coal, of 10 per cent., would increase the coal traffic by 8 per cent. Obviously a 10 per cent. reduction can then be required on coal without so greatly decreasing the railroad's net profits as if the reduction were required on wheat. Or a greater reduction can be required on coal than on wheat, without occasioning correspondingly greater loss to the railroad. The public may derive a larger gain and the railroad, at the same time, suffer no larger, and perhaps a smaller, loss of net revenue. A part of the gain of shippers and consumers is at the expense of the railroad, but a part of it flows from the fuller utilization of railroad plant and so represents a net economic gain to the community. Such an adjustment of rates might, therefore, be not undesirable. But the coal should under no circumstances be carried at a loss, for that would encourage transportation not worth its cost. Nor should rates on wheat be higher than would pay a fair return on the railroad plant and equipment necessary to transport the wheat only, for that would involve an arbitrary taxation of wheat shippers and consumers in favor of shippers and consumers of coal. It may, perhaps, be justifiable that the advantages of the larger scale transportation should show themselves entirely in the reduced coal rates. But it would not be justifiable to make the wheat rates higher, because coal traffic is also available, than if wheat alone could be carried.

On the other hand, if the railroad plant in question is

already pretty fully utilized when it is proposed to reduce rates, and cannot accommodate much more traffic, the reduction may, perhaps, no less advantageously be made on the wheat. At any rate, increased coal traffic should not be developed at rates lower than would pay reasonable returns on any additional plant thus made necessary.

It is obvious that similar considerations may deserve attention when the railroads propose rate advances and seek the consent of the Interstate Commerce Commission to put such proposed advances into effect.[1]

Whether voluntary or forced, a special rate reduction on favored goods is only justifiable if total traffic is thus increased. A reduction in the charge for carrying stone from a quarry to market might be economically defensible if it meant less community self-sufficiency, more persons engaged in producing for a distant market, consequent greater total trade, and more transportation. But economic justification would be lacking if the result of the reduction was that the quarry company, instead of adding to the total transportation business of the reducing railroad, merely drew into its quarries the sons and hired men of neighboring farmers, who would otherwise be devoting their entire labor time to providing the railroad with traffic in wheat. In such a case, discriminating reduction would tend to divert the industrial effort of the locality concerned, from more to less desirable channels. The reduction, if desirable, should then be general and not discriminating.

[1] See Bauer, Returns on Public Service Properties, *Political Science Quarterly*, March, 1915, pp. 106–133, especially pp. 116, 117.

§ 4

Summary

We conclude, then, that discrimination between different kinds of goods should not be arbitrary, but may, under certain circumstances, be economically defensible. When goods are competitive, higher rates should not be charged for carrying one kind the same distance and to the same market as another kind, unless the actual transportation cost is greater, since such discrimination in rates tends to divert industry from a more into a less profitable channel. Neither should arbitrary discrimination between raw materials and finished products be allowed to force manufacturing industries into locations where there is relative uneconomy of labor. But lower rates on some goods than on others may be justified in certain cases where the above evils are not likely to result, and where more complete utilization of the transportation plant is thus secured. And in reducing rates when profits are unduly high, regulating bodies may, with propriety, give attention to the probable effects on traffic of reductions in the charges for carrying different kinds of goods.

CHAPTER VII

Discrimination among Shippers

§ 1

Methods of Practicing and of Concealing Discrimination among Shippers

Having discussed discrimination among different places and among different kinds of goods, we have next to consider discrimination among different shippers, among different persons, or corporations. This kind of discrimination has been, with the railroads of the United States, very common, and as a matter of fact, is still in some degree practiced. Yet it is pretty generally objected to as unfair, is perhaps, of all kinds of discrimination, most repugnant to the ideals of a democratic people, and is, for American railroads,[1] definitely illegal and punishable. Discrimination among shippers is practiced also to some extent in ocean transportation by regular-line vessels.[2] The conditions tending to produce

[1] Or a railroad and a water line when they are operated "under a common control, management, or arrangement for a continuous carriage or shipment."

[2] Huebner, Report on *Steamship Agreements and Affiliations in the American Foreign and Domestic Trade*, in Proceedings of the Committee on the Merchant Marine and Fisheries in the Investigation of Shipping Combinations, 1914, Vol. IV, pp. 236, 237.

As the time for sailing draws near, a line vessel will sometimes accept very low rates rather than start with a very small cargo, while it will charge fairly high rates if its space is nearly taken. It may charge different rates to the very same person on different consignments of goods. (See Interstate Commerce Reports, Vol. XI, p. 24.) This, in itself, is not objectionable. Persistent and intentional favoritism is so. (See § 4 of this Chapter, VII of Part III.)

discrimination among shippers are hardly to be found in the case of charter traffic. Competition of tramp vessels insures reasonable rates to all shippers or groups of shippers able to charter a vessel; and one shipper would not often be favored, intentionally, with low charter rates, so long as others were ready, singly or jointly, to charter the same vessel and pay higher rates. Perhaps for this reason there has been more of a tendency to let competition on waterways take its course unregulated, though the evidences seem to be increasing that regular-line companies are comparable, in many respects, to railroad companies, are similarly subject to monopoly control, though perhaps not to the same degree, and may need to have their practices investigated with a view to regulation.

The popular opposition to discrimination among shippers, and the fact that legislation has forbidden railroads[1] to practice it, combined with a frequent wish that rival transportation companies should not know what is being done, have caused discriminating rates to be given and received in underhanded and evasive ways. In such ways the Standard Oil Company seems to have received transportation rate favors in recent years. Thus, it was shown by a government report[2] in 1906, that this company was advantaged by lower rates made from points where it alone had refineries than from points where there were refineries of independent firms.

Various devices have been used to insure secrecy, such as blind billing, false billing, failure to post and file

[1] Or railroads and water lines when the two modes of transport are operated "under a common control, management or arrangement, for a continuous carriage or shipment."

[2] Report of the Commissioner of Corporations on the *Transportation of Petroleum*, 1906.

rates, naming rates for goods transported in one kind of car while carrying the same goods more cheaply in another kind of car, etc. The lowest published rate on oil from Pennsylvania refining points into Vermont in 1904, was 23½ cents per hundred pounds. The Standard Oil Company, however, reached these points from its refinery at Olean, N. Y., by way of Norwood, N. Y., for from 15.3 to 16.9 cents per hundred.[1] The combination of rates under which this company's oil was shipped consisted of, first, a secret rate from Olean to Rochester, over a part of the Pennsylvania lines, a rate neither filed nor posted, and used in connection with blind billing;[2] second, a rate of 9 cents per hundred pounds over the New York Central road from Rochester to Norwood; third, low rates over the Rutland and Central Vermont railroads. Copies of the blind waybills of the Pennsylvania Railroad gave evidence that a large number of cars ostensibly billed to Rochester were really destined to places in Vermont. There was apparently a pretense that the traffic was intrastate, in order that there might be an excuse for the failure to file and post the rates in accordance with the Federal law on interstate transportation. The open tariff rate of the Rutland Railroad Company, on oil in barrels, from Norwood, N. Y. to Burlington, Rutland, Bellows Falls, and other Vermont points, was 33 cents per hundred pounds. But it appeared that the Rutland had, to these three points, from Norwood, in connection with the Central Vermont Railroad, very low tank car rates of $23, $28, and $30, respectively, per tank car; and it appeared, also, that for

[1] *Ibid.*, pp. 92–112.

[2] That is, the waybills omitted, in each case, a statement of the rate and of the total amount of the freight charge.

some time there had been no limit on the size of tank cars so used. Investigation showed that the tank cars sent to the above-mentioned three places from the Pennsylvania system were large, having an average capacity of 60,000 pounds. The average rate per hundred pounds in these tank cars was, therefore, between less than 4 and 5 cents, instead of 33 cents as in barrel shipments. Independent shippers had repeatedly asked for rates into Vermont, but had never received information of these low tank car rates.

The Standard Oil Company, it was shown in the same government report, got entrance to southern territory, from its great refinery at Whiting, Ind., largely via Grand Junction, Tenn. There was a rate filed reading only to Grand Junction.[1] There was no tariff of the Southern Railway, reading from Grand Junction to other destinations, filed with the Interstate Commerce Commission. The officers of the Southern Railway Company claimed that they believed they were merely collecting their proportion of a through rate published by the other roads. Whatever the facts as to this contention, the low rate was not practically available to other shippers than the Standard Oil Company.

But the rate based on Grand Junction was effectively secret for another reason.[2] Though the 13-cent rate as far as Grand Junction was filed with the Interstate Commerce Commission, yet this rate was not made to read from Whiting, Ind., where the Standard's refinery was located, nor from Chicago, Ill., just across the state border, but from insignificant near-by towns. Thus,

[1] Report of the Commissioner of Corporations on the *Transportation of Petroleum*, 1906, p. 250.

[2] *Ibid.*, pp. 268, 269.

the tariff of the Illinois Central Railroad, naming the 13-cent rate, read from Riverdale, Ill., and the later tariff of the Chicago and Eastern Illinois, from Dolton, Ill., both of these places being obscure junction points in the Chicago switching district. An independent shipper would naturally inquire the rate from Chicago to southern cities, not the rate from Riverdale or from Dolton, and in fact, the Chicago and Eastern Illinois Railroad itself, when the Bureau of Corporations (carrying on the investigation preparatory to its report) asked for the rates from Whiting to numerous points in the South, made no reference to the Grand Junction combination, but reported, in writing, rates based on Evansville. Both the Chicago and Eastern Illinois Railroad and the Illinois Central Railroad practiced blind billing.

Another method of discriminating without seeming to do so is by the use of a so-called industrial railroad. A manufacturing concern has constructed about its plant a few thousand feet of trackage. The ownership and control of such trackage is vested in a "Railroad Company," which in turn is owned by the manufacturing concern. Then the diminutive railroad system or company is allowed, by other railroads, a share of the through rate to destinations, in excess of the real value of its services. In the ultimate analysis, the manufacturing corporation receives the real benefit, and, in effect, pays lower rates for transportation than do its rivals.

A case decided by the Interstate Commerce Commission in 1904 supplies an illustration [1] of discrimination so brought about. It was shown, in this case, that the International Harvester Company owned the capital

[1] Interstate Commerce Reports, Vol. X, pp. 385–404.

stock of the Illinois Northern Railroad, and a controlling interest in the Chicago, West Pullman and Southern Railroad Company. These two railroad companies were terminal connecting roads operating in and about the city of Chicago between the plant of the Harvester Company and various railroads and other industries. Until about the time of the complaint before the Commission, these terminal roads had received, for their services, switching charges of from $1 to $3.50 per car. But this allowance had been increased, until it came to be a division of the through rate to destination, amounting sometimes to 20 per cent. of the rate, or $12 per car of 20,000 pounds, instead of the former maximum of $3.50. These high charges were regarded by the Commission as unlawful discrimination in favor of the International Harvester Company, and were, therefore, forbidden.

§ 2

Competition of Transportation Lines as Causing this Discrimination

What is to be said as to the causes of discrimination among shippers? Competition of transportation companies, *e.g.* railroads, with each other, the fear of each that it will lose large traffic to its rivals, is generally put forth as the principal explanation. It is a case of charging what the traffic will bear. And it is a case of charging what the traffic will bear without being diverted; not what it will bear without being destroyed. This seems to mean special concessions where there is special fear of large diversion of traffic to rivals. One might suppose that competition would mean lower rates to all shippers rather than to a favored few only or to one.

Two reasons may be suggested to account for the fact that reductions are made to some shippers and not to others. In the first place, the transportation company making the special rate is anxious that rivals shall not know of it lest these rival transportation lines get the traffic by offering as low or lower rates. But if the reduction is general, it is soon known to rival lines. In the second place, reductions are made to the very large shippers through fear of losing their traffic. There is much less fear of losing the business of small shippers, because this business is looked upon as relatively unimportant. And it is to be noted that what the large shipper wants and is likely to insist upon, if he feels his power sufficient, is not merely *low* rates, but a *difference* in rates between him and his competitors. If a large shipper, controlling $\frac{4}{5}$ of the business in any kind of goods, while the remaining $\frac{1}{5}$ is produced by scattered independents, threatens a railroad company with entire loss of patronage unless the railroad company will discriminate secretly in his favor, the railroad is likely to be frightened into submission. It may not have to submit to live, but its officers think submission will bring greater profits than refusal. Hence they agree to special rates which the scattered independents may not enjoy. At one time (1885) the Standard Oil Company paid 10 cents a barrel to have its oil carried a given distance on the Cincinnati and Marietta Railroad, while its competitors were required to pay 35 cents. As if this were not discrimination enough, the excess 25 cents charged to its rivals was to be turned over to the Standard Oil Company.[1]

[1] Tarbell, *The History of the Standard Oil Company*, New York (McClure Phillips and Co.), 1904, pp. 77–86.

In order to prevent competition from taking this form, the law has to provide and enforce severe penalties, just as it has to enforce penalties against "competition" which takes the form of killing a competitor, or destroying his property, or misrepresenting his goods, or using child labor. Under section two of the Interstate Commerce Act, discrimination between shippers is illegal by whatever special rate, rebate, drawback, or other device it may be brought about. The Interstate Commerce Commission has authority over rate practices and can investigate cases where discrimination is suspected. Furthermore, the Elkins law of 1903, as amended in 1906, makes both the giving and the receiving of a concession from the published rate a criminal offense.

It is not intended to assert that lower rates per hundred pounds should not be charged on large shipments than on smaller ones, to the extent that the larger shipments are carried at proportionately less cost by virtue of their concentration. That the rate should be lower on carload than on less than carload lots, is generally recognized. There may be equal justification for a somewhat lower rate, per hundred pounds, on trainload than on carload lots, provided that the difference is not excessive and that the lower large-scale rates are open to all shippers alike on equal terms. But it is hard to believe that any saving in the handling of large lots is sufficient to justify such discrimination as that above mentioned, where one company paid 10 cents for a service that others could get for not less than 35 cents, and had its 10-cent rate reduced by getting the surplus 25 cents on all others' shipments.

§ 3

Other Causes of Discrimination among Shippers

Other influences than competition of transportation lines may cause discrimination among shippers. With or without competition, there would be likely to result discrimination in favor of industrial concerns in which some of the principal stockholders or some of the directors or important officials of transportation companies have financial interests. That the principal stockholders and directors in some big industrial concerns which have received such favors are also largely interested in railroads, is generally recognized. But there appears to be no instance of discrimination among shippers where the discrimination has been definitely traced to this cause.

A special report [1] of the Interstate Commerce Commission in 1907, however, presented evidence showing that the Pennsylvania Railroad system had discriminated in its allotment of cars in favor of coal companies in which some of its officials were interested. These officials had in some cases bought their stock in coal companies, had in other cases obtained it mainly by promoting or allowing their names to be used in promoting said companies, and had in still other instances been given the stock outright by promoters.[2] It appeared that during a period of six weeks in the early part of 1903, when coal was in great demand, a large number of mines on the Pennsylvania system were left without any car supply whatever. So far as could be learned, however,

[1] *Discrimination and Monopolies in Coal and Oil*, Special Report by the Interstate Commerce Commission, 1907.

[2] *Ibid.*, p. 23.

no mine on the Pennsylvania system, in which an officer of that company was interested as a security holder, was left, during the period in question, without car service.[1]

Discrimination in fact, if not in form, is likely to result when a transportation line, as a corporation, owns a producing company or the securities of a producing company. Under such circumstances may come the temptation to the transportation line to make rates which will drive out independent producing concerns. It is to be noted that discrimination so caused can be at its worst when there is monopoly of transportation. When competition exists, the independent producing firm, if denied reasonable rates by one line, has at least a recourse to that line's competitors and may ship by the line offering the lowest rates. When there is transportation monopoly, high rates to independent producing firms may drive these firms out of business, establishing in complete control the subsidiary corporations through which the transportation line (or lines) carries on industrial ventures. It is not even essential that the rates should be nominally higher for the independent firms than for those producing corporations which the transportation company owns. It matters not how high rates are made for a subsidiary company owned by a transportation line. Whatever such a dependent company loses in having to pay higher freight rates, the transportation line which owns it gains. It matters not how much a company pays for any service, when it only pays itself. But it does matter to independent companies how high rates they must pay. High rates

[1] *Discrimination and Monopolies in Coal and Oil,* Special Report by the Interstate Commerce Commission, 1907, p. 63.

to them mean loss of profits and mean ultimate bankruptcy. Discrimination caused in this way is asserted, in government reports,[1] to have been practiced by the railroads serving the anthracite coal mines in and near Pennsylvania. The effect seems to have been to force out independent mining concerns and to enable the railroads to get possession of many anthracite coal mines.[2]

§ 4

The Practice of Discriminating among Shippers, Tested by the Principles of Industrial and Commercial Ethics

It has already been suggested that somewhat lower rates for large shipments than for small ones may often be defensible if open to all alike. So far as there is a real saving to a transportation company, in taking for shipment a large quantity of any goods at a time, it is proper that rates should be so adjusted as to encourage large shipments. But arbitrary discrimination among shippers, *i.e.* favoritism, by transportation lines has nothing whatever to commend it. It tends to build up private monopolies. It injures consumers. It violates the principles of industrial and commercial ethics.

That discrimination among shippers tends to build up monopolies and to force out would-be competitors

[1] 2d Session, 52d Congress, H. R. 2278, pp. iii, iv, and vi; also Industrial Commission Reports, 1902, Vol. XIX, p. 462.

[2] The "Commodity Clause" of the Hepburn Act of 1906, which was intended to make impossible this ownership by railroads, of producing companies or of goods transported (with the exception of timber and its manufactured products), has been so interpreted by the Supreme Court as to make it of doubtful importance. See *United States* v. *Delaware and Hudson Company*, 213 U. S., 366; *United States* v. *Lehigh Valley Ry.*, 220 U. S., 257; *United States* v. *Erie Ry.*, 220 U. S., 275; *United States* v. *Delaware, Lackawanna and Western Railroad Co. and the Delaware, Lackawanna and Western Coal Co.*, 35 Supreme Court Reporter, 873.

is too obvious to require much further proof. The company which has to pay a higher freight rate is disadvantaged to that extent in the struggle to make a low price to the consumer while yet disposing of its goods at a profit.

The railroads (or navigation companies), taken as a whole, have nothing to gain by favoritism. They do not have greater traffic in any commodity, *e.g.* they do not have greater traffic in oil, merely because by favoritism they have enlarged one shipper's business, while simultaneously ruining other shippers. Thus, the railroad plants are not, taken as a whole, more fully utilized by such discrimination. Indeed, to the extent that the railroads build up a monopoly which, by making high prices, curtails consumption, they may lose traffic. Effectively to prohibit this form of competition among transportation companies would leave these transportation companies no worse off and perhaps better off. The condition is somewhat parallel to that which confronts us when we attempt to prohibit child labor or to limit the hours of adult labor in mines, etc. Each company concerned may be not unwilling to conform, provided it can have assurance that its competitors will do likewise. Such cases come under one of the classes of cases, which, John Stuart Mill believed, justified interference of government in economic affairs, viz., where something is to the general interest, but where nobody concerned is likely to conform to this interest voluntarily.[1] The force of law may then properly compel conformity on the part of all.

Discrimination among shippers can hardly be said to benefit consumers. If it takes the form of abnormally

[1] Mill, *Principles of Political Economy*, Book V, Chapter XI, Section 12.

high rates charged the competitors of the favored company, consumers are simply deprived of the benefit of competition by these other concerns, without getting the goods from the favored firm at any lower prices. The resulting monopoly will almost certainly bring higher prices. Even if the discrimination takes the form of abnormally low rates to the favored corporation, consumers will hardly derive permanent benefit from it. The favored corporation can appropriate the difference between its freight rate and that of its rivals, or it can drive them out of business and thereafter appropriate more than the difference. A low rate, which is in the nature of a special privilege, is not likely to inure to the benefit of the general public.

Personal discrimination not only does not benefit, and tends to injure railroads and consumers; it also fails to stimulate the productive power of the community and tends rather to weaken it. It removes, to a degree, the greatest stimulus of efficiency, viz., the consciousness that by efficiency and by it alone, can success be attained. There is no certainty that the most efficient company will be the one most favored by discrimination. Favors are more likely to go to a large concern than to a progressive and growing one. And even if, as doubtless not infrequently happens, the favored concern is also, at the time, the most efficient, a knowledge that discriminating rates will partly protect it from competition certainly is not conducive to keeping it thus efficient. In short, survival in competition, through favoritism, is likely not to be a survival of the socially fittest.

When men are organized in a community or nation, the survival of this community or nation is of fundamental importance. The struggle for existence has

provided sufficient evidence that men who are isolated are at a disadvantage; organized society helps the individuals in it to life and happiness. Therefore, with men, the struggle for existence has long since taken the form of a struggle or competition between groups.[1] The group which, all other things equal, has the best organization and the highest types of men,[2] is most likely to prevail. Those characteristics, those standards of right, and those organizations within a community which are most calculated to further the welfare of the whole and its continued survival, must be adjudged the fittest. For this reason, the competitive system of industry has been, by most writers, regarded as desirable. It stimulates efficiency among the members of a group and, therefore, in the group as a whole. For this reason, the aim of eugenics is sound. Its purpose is to stop the breeding of poor units of society and bring about a breeding, more largely, from the strong, the alert, the successful. For this reason, monopoly established by the favoritism of transportation companies is undesirable. Consumers are likely to suffer in the end. Efficiency is likely to be less. The community as a whole is injured and therefore weakened. There is a great difference in the effect on the general welfare between monopoly which is gained and kept by efficiency alone, and monopoly which is the result of artificial advantages, making competition by others difficult or impossible.

[1] Cf. on this topic in its connection with economic activities, Hadley, *Economics*, New York (Putnam), 1906, pp. 18–23.

[2] At least, as regards their relations to fellow members of their own group. Whether considerate dealing with members of alien groups is any advantage may depend largely on the stage of development of, and the strength of, world opinion. Such dealing may conceivably make, for a national group, all the difference between living in a world of friends or a world of united enemies.

There is a considerable analogy between transportation discrimination and the protective tariff system. In both cases, some producers (by the protective tariff, foreign producers) are put at an arbitrary disadvantage compared with others. In both cases the rule that success should depend on efficiency in service is violated. In both cases, competition is seriously restricted and monopoly may result.[1] In one case, efforts of persons desiring the favoritism are turned from the search for more efficient methods of production into selfish political activity; in the other case, efforts which might be devoted to rivalry in efficiency are turned to the persuasion or browbeating of transportation lines' managers. In both cases, the public is likely to suffer.

The ideal of industrial and commercial organization requires that there should be ever active in business a rivalry of business men and corporations in serving well the community, and that success should come to those whose service is the best. An individualistic, as distinguished from a socialistic or a communistic society, relies frankly, to a great degree, on the self-interest of men and their interest in their own immediate families, as motives to economic activity. To the extent that an individualistic society realizes its own proper ideal, it endeavors by public opinion and by definite and enforced law to prevent, absolutely, all anti-social means of gain, to prevent all methods of carrying on business, which are antagonistic to the ultimate well-being of the social group. So far as it is possible to do this, the only profitable lines of activity left open are those in which the individual gains the most for himself by doing the most for the community. He who invents labor-saving ma-

[1] Cf. Part II, Chapter VI, § 10.

chinery, he who best organizes the forces of production, he who best economizes raw materials, he who accumulates needed capital, he who is therefore able to offer the public the most for a given money return, finds himself most prosperous. The attainment of such an ideal of industrial and commercial life, as is here suggested, would not preclude the possibility of an individual's acquiring great wealth. Under the reign of this ideal, great wealth would become, except where acquired by gift or inheritance, an evidence of great service, and, therefore, a valid title to distinction. It would not be, as is now too often the case, a badge of dishonor. It is conformity to this ideal of industrial and commercial life, by the individual and the group, which constitutes industrial and commercial morality.

To hasten the more complete realization of such an industrial ideal, we must express ourselves in its favor and denounce its opposite. When we do this, however, we are liable to be told that those who have succeeded in accumulating wealth by anti-social means, for example, by illegal and discriminatory railroad rates, are no worse than many others who have remained poor; that many competitors would gladly have done likewise if they could, but simply lacked the chance or the sharpness; that it is not right, is cruel, in short, continually to denounce the men who have succeeded.

Those who take, without qualification, this attitude, miss the whole social philosophy of disapproval and punishment. Every wrongdoer, be he murderer, thief, or industrial free-booter, is the product of two forces, heredity and environment. He is made, absolutely, by these. Why, therefore, some may ask, make him suffer for wrongdoing, by disapproval or punishment. The

answer is threefold. First, restraint is necessary on the criminally disposed, in order to protect society against their anti-social activities. Second, society's disapproval and punishment, or the fear of these, are themselves part of the environment which molds men, and are, therefore, in some degree, preventive of wrong. Third, denunciation of wrongdoing arouses the unnoting and the indifferent, and so helps to establish and enforce prohibitions. If we would have a true industrial and commercial morality generally practiced, we must manifest open disapproval of industrial free-booting. Thus only can we be confident of developing, in the rising generation, a sentiment against industrial and commercial immorality, of arousing society to active opposition, and of making unfair methods of wealth-getting no longer pay. We must have such laws and such enforcement of laws that it will only be worth while to accumulate wealth by service.

§ 5

Summary

Discrimination among shippers is, we have seen, practiced in evasive ways, partly because of its illegality and of popular disapproval. These ways include blind billing, false billing, use of special equipment, such as tank cars by favored shippers at secret rates, making discriminating rates read from insignificant points so that others than the favored companies shall not know of them, allowing large sums for the services of terminal railroads or sidings owned by corporations, and various other concealments and evasions. Discrimination is caused by competition, by interest of stockholders, di-

rectors, or officers of a transportation company in other companies, and by interest of a transportation company itself in other companies. Discrimination among shippers does not benefit transportation companies themselves, taken as a whole, nor does it bring economy by more fully utilizing the transportation plants. It tends to injure consumers. It builds up monopoly. It conduces to the survival of the relatively inefficient. It violates the proper ideal of industrial and commercial morality. It deserves, in full, the condemnation it generally receives, and should be persistently hunted down and rooted out of our business life.

CHAPTER VIII

Steps in the Development of Rate Regulation in the United States

§ 1

Extent of the Rate-regulating Power

The preceding pages have set forth the theory of transportation rates in relation to commerce, have explained what important departures from economically justifiable rate-making principles are likely to occur, and have therefore gone far to make clear the philosophy of public rate regulation. The real reason why we have, to the present extent, government regulation of transportation rates, is that the protection of commercial and industrial interests has seemed to require it. The Supreme Court of the United States, in the so-called Granger cases, based the right of the several states to regulate railroad rates upon the *public character* of the railroad business. The public character of the railroad business is evidenced (in the view of the Supreme Court) by three facts. The first of these facts is that the railroads are common carriers, having, therefore, duties to perform in which the public has an interest.[1] The second is that a railroad is a public highway. The creation and maintenance of a public

[1] See *Munn* v. *Illinois*, 94 U. S., 130.

highway is a recognized function of the state and, therefore, if the work is delegated to a private corporation, such a corporation is performing a function of the state.[1] The third is that the building of a railroad involves the grant and use of the power of eminent domain, a power which is supposed to be exercised only for a public purpose.[2] This last fact, viz., that the power of eminent domain is exercised in the building of railroads, is not, like the two facts previously mentioned, a reason why the railroad business is public in character. It is rather a result[3] of the public character of the business. It is important chiefly as furnishing indisputable evidence that the business is public. But it by no means follows that a business which does not require the exercise of this power cannot be, in whole or in a partial sense, a public business, or cannot be regulated by government. Any business which is sufficiently affected with a public interest is a proper subject for regulation by government, whether the business be that of railroads, navigation companies, street railways, oil pipe lines,[4] express companies, etc., or merely (for example) the maintaining of public warehouses.[5]

In some of the early cases involving regulation of railroad rates by state governments, the railroads concerned claimed that they were exempted by their charters from such regulation. But the Supreme Court ruled, in these cases, that a charter could not be presumed to

[1] See *Smyth* v. *Ames*, 169 U. S., 544.

[2] *Ibid.*

[3] Cf. Smalley, *Railroad Rate Control*, Publications of the American Economic Association, third series, Vol. VII, 1906, no. 2, pp. 15, 16.

[4] See the recent Pipe Line cases, 234 U. S., 548.

[5] See *Munn* v. *Illinois*, 94 U. S., 130.

confer exemption from legislative control. On the contrary, the presumption always is that no such exemption was intended. Such exemption is not conferred by a clause in the charter, giving a company the right to fix its rates, unless the charter also contains a renunciation by the state of its regulating power.[1] The various states could not, of course, by charters or in any other way, guarantee the railroads against such regulation as falls, constitutionally, within the list of powers of the Federal government. The most that a state could do would be to relinquish its own regulating powers. But the court will not hold that a state has done even this, unless there is clear evidence of legislative intent.

Both the states and the Federal government are limited in their rate-regulating powers by the constitutional prohibition against depriving any person of property without due process of law. Rates which are so low as to be confiscatory are unconstitutional. Formerly, the Supreme Court apparently took the ground that rates fixed by legislation could not be set aside by the courts even if shown to be unduly low.[2] In later decisions, however, the Supreme Court has very clearly upheld the view that unduly low government-made rates may be unconstitutional and that it lies in the power of the Federal courts to prevent their enforcement.[3]

[1] See *Ruggles* v. *Illinois*, 108 U. S., 541, and *Stone* v. *Farmers' Loan and Trust Co.*, 116 U. S., 307; both cited by Smalley, *Railroad Rate Control*, p. 23.

[2] See, for example, *Munn* v. *Illinois*, 94 U. S., 113; *Chicago, Burlington & Quincy Railway Co.* v. *Iowa*, 94 U. S., 155; *Peik* v. *Chicago & Northwestern Railway Co.*, 94 U. S., 164.

[3] See *Chicago, Milwaukee and St. Paul Railway Co.* v. *Minnesota*, 134 U. S. 418; *Reagan* v. *Farmers' Loan & Trust Co.*, 154 U. S., 362; *Smyth* v. *Ames*, 169 U. S., 466. See, also, article by Alton D. Adams in the *Journal of Political*

§ 2

Rate Regulation by the State Governments

The Constitution of the United States gives to the Federal government the power to regulate commerce among the various states and with foreign nations. There is left, to the individual states, the right to regulate purely intrastate commerce. Consequently, there has been both state and Federal regulation of railroad rates. And state regulation, in the case of many of the states, preceded Federal regulation by a number of years. The various states have exercised their power over commerce by making discriminations illegal, by establishing maximum rates and fares, and by creating commissions to act as regulating bodies.

The commissions established by the states to supervise intrastate rates have usually been described as of two types, the "weak" and the "strong" commissions. The former were given no power to fix rates. They could investigate complaints and could recommend changes, but could not enforce their views unless through public opinion or by influencing legislation. Commissions of this kind have been called *supervisory-advisory*. The so-called "strong" commissions have had the rate-regulating power. In some states they merely correct unjust rates which are complained of or which their investigations show to be discriminatory or unduly high. In other states it is further made the duty of the commissions to prescribe complete schedules of maximum rates. The tendency of state legislation during the last

Economy, December, 1903, pp. 79–97, on Reasonable Rates. (Reprinted in Ripley's *Railway Problems*, revised edition, Boston — Ginn —, 1913, pp. 597–618.)

ten or fifteen years has been towards the stronger or *mandatory* type of railroad (or public service) commissions. The newly created commissions have nearly all been of this type. And even states which had long been content with commissions of the supervisory-advisory class have increased the authority over rates conferred upon them. Most of the states now have mandatory commissions.

In the earlier days of state railroad regulation, the states endeavored to control interstate as well as intrastate rates. This they did by fixing the rates which must be charged on interstate traffic for that part of the haul lying within the state or states legislating. Until 1886, this was assumed to be, in the absence of Federal legislation, a legitimate exercise of state authority. The language of the Supreme Court of the United States in the case of Peik *v.* Chicago and Northwestern Railway Company [1] apparently favored this view. But in 1886, in the case of the Wabash, St. Louis and Pacific Railway Company *v.* Illinois,[2] the court decided that the individual states might not thus regulate the rates charged on interstate traffic. This decision seemed to emphasize the need of Federal action and was one of the important influences leading to the enactment of the original Interstate Commerce Act.

Two recent decisions on Federal *versus* state jurisdiction over railroads are important and may properly be mentioned at this point. The first [3] involved the validity of rates fixed by the state of Minnesota, through its legislature and its Railroad Commission. These rates, it was complained by the railroads, upset the relative

[1] 94 U. S., 164. [2] 118 U. S., 557.
[3] The Minnesota Rate case, 230 U. S., 352.

adjustment of rates upon interstate and intrastate traffic, causing discrimination in favor of the latter and against the former. They interfered, therefore, it was urged, with interstate commerce. The Supreme Court, in upholding the state's right to regulate such rates, held that there could be no conflict between state and Federal regulation but that the authority of Congress over interstate commerce and its instrumentality was supreme and complete. Whenever state regulation conflicted with the exercise of this authority, state regulation must yield. However, Congress had intentionally left the regulation of purely intrastate rates to state control. Until Congress itself found reason to extend its authority over these rates as a necessary means of exercising its authority over interstate commerce, the power of the several states to regulate must be upheld. Congress had established the Interstate Commerce Commission as a Federal regulatory body; and if rates made by Minnesota caused discrimination against points outside of the state, in any way which the Interstate Commerce Act made illegal, complaint should be made to the Interstate Commerce Commission and not to the courts.

In the Shreveport, La., case,[1] the Supreme Court upheld a ruling of the Interstate Commerce Commission fixing the relation between certain intrastate rates which had been made unduly low by the Texas Railroad Commission, and certain interstate rates. The power to deal with the relation between such rates, *as a relation*, was declared to lie with Congress and therefore, of course, with that body (the Commission) to which Congress had delegated its powers of control.

[1] 234 U. S., 342.

§ 3

The Interstate Commerce Act of 1887

The Federal law of 1887 applied to all interstate railroad transportation, to all rail transportation of goods to be exported, or of imported goods, and likewise to transportation "partly by railroad and partly by water when both are used under a common control, management, or arrangement for a continuous carriage or shipment"; except that the carriers transporting goods between the United States and a non-adjacent foreign country are not subject to this law. In its first section, the Interstate Commerce Law declared that all charges should be reasonable and that unjust and unreasonable charges were illegal.

Section two declared illegal any discrimination in the charges to different shippers or passengers for like and contemporaneous services, by means of any special rate, rebate, drawback, or other device. The purpose of this clause was undoubtedly to prohibit unfair discriminations between shippers by any means whatever, to "strike through all pretense, all ingenious device, to the substance of the thing itself," [1] and the Interstate Commerce Commission has so interpreted it.

Section three of the Act of 1887 forbade the giving of any undue preference or advantage to any person, corporation, locality, or particular description of traffic. The prohibition against discrimination between places the Commission has interpreted to mean that rates which deprive any city or town of the benefits flowing from its

[1] Interstate Commerce Reports, Vol. X, p. 402 (pp. 385–404 for entire case).

location or other natural advantages are unlawful.[1] The prohibition against discrimination between different kinds of goods has been applied to prevent an undue difference in the rates charged for carrying such competitive articles as Pearline and common soap,[2] and, also, to prevent too great a difference in the charges for transporting raw materials and their finished products, *e.g.* wheat and flour.[3]

Section four of the law is the "long and short haul clause." This section made it "unlawful for any common carrier subject to the provisions of this act to charge or receive any greater compensation in the aggregate for the transportation of passengers or of like kinds of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, in the same direction, the shorter being included within the longer distance." The Interstate Commerce Commission was given power to suspend the operation of the fourth section, in special cases, when investigation showed that conditions warranted such suspension.

In general, the first four sections of the law had to do with the regulation of rates, and laid down the requirements that the charges made by railroads for transporting goods and passengers in interstate commerce should not be unreasonably high and should not be discriminatory.

Section five of the law made it illegal for railroads to

[1] See, for instance, Eau Claire Lumber case, Interstate Commerce Commission Reports, Vol. V, pp. 264–298. See also Chapter IV of this book.

[2] Interstate Commerce Commission Reports, Vol. I, pp. 465–479. See discussion in Chapter VI of this book, § 1.

[3] See Interstate Commerce Reports, Vol. VIII, pp. 214–276. See discussion in Chapter VI of this book, § 2.

pool their freights or their aggregate net earnings. Taken in conjunction with the Anti-trust Act of 1890 (and the Clayton Act of 1914), it was calculated to make illegal any monopolistic arrangement between what would else be competing companies. Furthermore, the Panama Canal Act of 1912 contains a provision that no railroad may own, operate, control, or have any interest in a competing water line.

Section six required the printing and keeping open to public inspection of all rates and fares. Furthermore, all rates and fares, joint tariffs, and notice of rate changes were required to be filed with the Interstate Commerce Commission. A ten days' notice was required of any advance in these printed rates and fares and a three days' notice of reduction (Amendment of 1889). Longer notice (30 days) is now required for changes in either direction.

By the law of 1887, discrimination between shippers could only be proved legally by the presentation of evidence that one shipper had actually been charged a lower rate than another. A railroad might, when accused of charging any shipper less than the published rates, maintain that if less than published rates were asked of other shippers also, no discrimination had been practiced. This made it very difficult to convict railroads of discrimination. The Elkins Law of 1903 made the gist of the offense a departing from the published rate. The Elkins Law also made the recipient as well as the giver of a discrimination criminally responsible, and it made corporations liable to punishment as well as their agents, who alone had been guilty under the law of 1887 when the common carrier disobeying the law was a corporation. The Elkins Law abolished imprisonment as a penalty, providing merely for fines

of from $1000 to $20,000 for each offense. The penalty of imprisonment has since been restored.[1] Fines remain, however, the only punishment for minor offenses.

A number of sections of the Interstate Commerce Act prescribed the makeup of the Interstate Commerce Commission and defined its duties. It was to be composed of five members, appointed by the President of the United States with the consent of the Senate. Not more than three were to be of any one political party. The Commissioners could not own railway securities nor could they, while holding office, engage in any other business. They were to be appointed for terms of six years and were to receive $7500 salary, each. In general, it was to be the duty of the Commission to enforce the law by specifically forbidding such rates or rate practices as seemed to be unreasonable or discriminatory. It was given power to investigate and, to that end, could require of railroads the production of books and papers and the giving of testimony. The law originally stated that no witness might refuse his testimony even if it criminated himself; but such testimony was not to be used against him in any criminal proceeding. But before the courts would hold that the witness' constitutional right not to testify against himself was guaranteed,[2] Congress had to pass a supplementary law (in 1893) giving the witness protection against any prosecution, civil or criminal, on account of any testimony submitted.

One of the weaknesses of the Interstate Commerce Law, in its original form, was the fact that orders of the Interstate Commerce Commission, as to rates, etc.,

[1] See § 4 of this Chapter.

[2] See *Counselman* v. *Hitchcock*, 142 U. S., 547.

could be enforced only by appeal of the Commission to a United States circuit court. In consequence, the railroads could ignore the Commission's orders, in each case, until the matter had been carried through this court and, on appeal, through the Supreme Court. In the meanwhile — several years having perhaps elapsed — the injured shipper who had brought the complaint might be driven out of business by the continuance of the rate or rate practice complained of. This weakness of the law was corrected in 1906.[1]

Again, the law stated that in the consideration before the court, of an Interstate Commerce Commission order, the Commission's findings as to facts were to be accepted as *prima facie* evidence. Nevertheless, the courts allowed new evidence to be brought in. Hence, railroads sometimes *reserved* part of their testimony for the court hearings. In the absence of such testimony, the Commission might give a decision adverse to a railroad, only to have its decision discredited and overruled by the court to which all the evidence was later presented. More recent legislation and judicial ruling have done away with this practice.[2]

While the Interstate Commerce Commission was, as above pointed out, to bring action before a Federal circuit court for the purpose of enforcing its own orders, yet criminal prosecutions for offenses against this and other Federal laws are brought by the Federal Department of Justice.

The Interstate Commerce Act, as passed in 1887, required that an annual report be made to the Commission by each carrier subject to the act, containing statistical information as to capitalization, expenses,

[1] See § 4 of this Chapter. [2] *Ibid.*

financial standing, etc. The Commission was formally given power to prescribe a uniform system of keeping accounts, but, as the law did not confer on the Commission the power to inspect and audit accounts, no attempt was made, until after the amendment of 1906 [1] was passed, to prescribe an accounting system.

We have seen that the Interstate Commerce Act forbade unreasonably high as well as unjustly discriminatory rates, and established a Commission to decide in individual cases whether rates and fares were just and reasonable; that this Commission might investigate rates and practices either after complaint or upon its own initiative; and that it might order carriers to desist from charging unjust rates or engaging in illegal practices. For a number of years the Commission interpreted these provisions of the law to mean (among other things), that in ordering a carrier to desist from charging an unreasonable rate, it (the Interstate Commerce Commission) might name a maximum rate above which the carrier could not charge. But in 1897, the Supreme Court, in the Maximum Rate case,[2] decided that though Congress might, if it chose, have conferred such a power upon the Commission, the wording of the statute did not indicate any such intention. The Commission has since, however, been given this power.[3]

The fourth section of the law, also, was so interpreted by the Supreme Court as greatly to lessen the regulating power of the Commission. This section, in the form given to it in 1887, forbade railroads to charge more, *under substantially similar circumstances and conditions*,

[1] See § 4 of this Chapter.

[2] *Interstate Commerce Commission* v. *Cincinnati, New Orleans and Texas Pacific Railway*, 167 U. S., 479.

[3] See § 4 of this Chapter.

for a shorter haul than for a longer, over the same line and in the same direction, the shorter haul being included in the longer. The Interstate Commerce Commission itself took the view that higher charges might be allowable for the shorter distance traffic if low rates over the longer distance were forced by the competition of a water route, or of railways (*e.g.* foreign railways) not subject to the Interstate Commerce Act, or in certain "rare and peculiar cases," as when one of the railways concerned was comparatively roundabout, of competition between railroads subject to the statute.[1] But the Supreme Court interpreted the qualifying phrase more broadly, pointing out that competition between different railways should always be taken into account in deciding whether circumstances and conditions were substantially the same or different for the longer than for the shorter distance traffic,[2] and that competition which was real and substantial, and which exercised a potential influence over rates to the longer distance point, made the conditions substantially dissimilar.[3] The present (amended) law,[4] however, gives to the Commission the jurisdiction which its members, previous to the court's interpretation of the old law, believed they possessed.

§ 4

The Amendment of 1906

The various weaknesses in the law of 1887 caused considerable dissatisfaction and brought, eventually, a

[1] Interstate Commerce Commission Reports, Vol. I, pp. 31–85.

[2] *Interstate Commerce Commission* v. *Alabama Midland Railway Company et al.*, 168 U. S., 144.

[3] *East Tennessee, Va., and Ga. RR. Co.* v. *Interstate Commerce Commission*, 181 U. S. 19.

[4] See § 5 of this Chapter.

popular agitation sufficiently strong to compel amendment. The so-called Hepburn Law of 1906 extended the authority of the Interstate Commerce Commission over express companies, sleeping-car companies, pipe lines for the transportation of oil [1] and other commodities (excepting water and gas), and private car lines. The private car lines were definitely placed under the regulating power of the Commission because charges for refrigeration, icing, and special forms of packing had been exorbitant, and because carriers had refused to publish their refrigeration charges, contending that icing and similar services were of a private nature and not subject to the Commission's control. Separate publication is now required of terminal, storage, and icing charges and of the charges for any other facilities or privileges granted.

We saw, in the last chapter,[2] that advantages to certain shippers have sometimes been given, and concealment attempted, through the use of what have been called "industrial" or "tapline" or "terminal" railroads. Such a "railroad" would be owned by the corporation seeking the discrimination and would receive excessive pay for its services, even, perhaps, a division of a through rate. The corporation which owned it would be the real beneficiary. Under the old law, the Commission had not hesitated to deal with this kind of situation as being a violation of the prohibition against discrimination between shippers, as being a mere device to evade the law.[3] But the Act of 1906 definitely ex-

[1] In the recent Pipe Line cases, the Supreme Court upheld the clause of the law making pipe lines common carriers and subject to regulation as such, thereby reversing a decree of the Commerce Court. See 234 U. S., 548.

[2] § 1.

[3] Interstate Commerce Reports, Vol. X, pp. 385–404.

tended the jurisdiction of the Commission over all such terminal or connecting lines, formally giving that body the power to determine a proper switching charge or a proper division of a through rate. Further to limit possible discrimination, the amended law requires that if a branch line or a shipper makes application to a railroad for a switch connection, and if such a connection is reasonably practicable and is warranted by the amount of business, the railroad applied to must furnish the connection. The Interstate Commerce Commission, after investigation, may order such a switch connection to be made.

We saw, also, in the last chapter,[1] that discrimination in fact if not in form might arise, and had apparently arisen in some cases, from the ownership, by railroads, of producing corporations, particularly from railroad ownership of coal mines. The Hepburn Law endeavored to make impossible discrimination so arising, by interfering with the railroad ownership of other business. The so-called "commodities" clause of the law accordingly provided that after May 1, 1908, no railroad should be allowed to transport in interstate commerce, any commodity other than timber and its manufactured products, produced by it or under its authority, or which it might own in whole or in part, or in which it might have any interest direct or indirect, except so much as might be intended for the railroad's own use as a common carrier. The Supreme Court, however, in the case of *United States* v. *Delaware and Hudson Railroad Company*,[2] declared that the mere fact of a railroad owning stock in a coal mining company, did not, irrespective of the amount of that stock or of other

[1] § 3. [2] 213 U. S., 366.

facts, imply that the railroad owned the coal either directly or indirectly. It might, therefore, transport it. Also, it might transport coal which it had previously owned, provided that it sold this coal to some other company before transporting it. This decision greatly weakened the force of the law. But the court apparently did not intend so to interpret it as to make it of no effect, for in the case of *United States* v. *Lehigh Valley Railroad*,[1] following not long after the other, it was declared that ownership of practically all the stock of a coal company by a railroad, and parallel officering of the coal company and the railroad company, made the two corporations for all practical purposes one corporation; and that in such a case, the railroad owned the coal and could not legally transport it. Thus far, Congress has not seen fit to amend the clause so as to prohibit stock ownership by railways in producing corporations.

Under the Act of 1887, free transportation had been declared by the Interstate Commerce Commission, in some instances, to be illegal, as being a violation of the general prohibition of discrimination.[2] But the Act of 1906 definitely and formally prohibited free passes and tickets, except to railroad employees and their families, express, telegraph, and postal service officials, caretakers of live stock, etc., the poor and unfortunate classes, and those engaged in religious and charitable work.

The law also strengthened the provisions of the Elkins

[1] 220 U. S., 257. See, also, the recent decision (June 21, 1915) in the case of *United States* v. *Delaware, Lackawanna and Western Railroad Co. and the Delaware, Lackawanna and Western Coal Co.*, 35 Supreme Court Reporter, 873.

[2] See Interstate Commerce Commission Reports, Vol. V, pp. 69–83. See § 3 of this Chapter for statement of this general prohibition.

Act of 1893, by making both giver and receiver of an illegal rate liable to imprisonment as well as to a fine. In addition to this penalty, the recipient of a rate favor must now forfeit to the government three times the value of the reduction enjoyed.

A most important addition to the power of the Interstate Commerce Commission was made by a clause conferring the right to fix maximum rates for transportation. We have already seen [1] that the Commission endeavored to exercise this power under the old law but was prevented by a decision of the Supreme Court from so doing. The Commission now establishes maximum joint rates as well as maximum rates for transportation over a single railroad, and it may prescribe the division of such joint rates among the carriers concerned. It may establish through routes, and this it may do when one of the connecting carriers is a water line. The Commission may now, also, determine the maximum charge to be paid by a carrier for any service rendered or instrumentality provided by a shipper. This makes it clearly possible for the Commission to prevent such discrimination as might result, for instance, from the payment of undue rental by a railroad for the use of a shipper's cars, though such undue rental would have been unlawful before 1906 as being a mere device for giving a discriminating rate. The later statute simply puts beyond question, in this regard, a power which the Commission was previously exercising.

The law of 1906 made an important change relative to the enforcement of the Commission's orders. An order of the Commission now goes into effect, and punishment for ignoring it begins to run 30 days (or such

[1] § 3 of this Chapter.

longer time as the Commission may designate) after the order is promulgated. The penalty for disobedience is $5000 for each offense, and each day of delay is a separate offense. Hence, a railroad cannot afford to ignore an order until the Commission has carried the matter to a court. But the railroad may itself appeal, and, if it does so before the 30 days are up, the order does not go into effect until the appeal is heard and decided. The law of 1906 gave jurisdiction to the Federal circuit courts to enjoin, set aside, or suspend orders of the Interstate Commerce Commission after a hearing preceded by 5 days' notice to the Commission. Various passages in the law appear to indicate the intention of Congress that investigations as to the facts in each case shall be carried on by the Interstate Commerce Commission and not by the courts, and that the courts shall not set aside orders of the Commission as to rates and other matters, except when these orders are outside of the Commission's legal power to make or are unconstitutional. This view of the law seems now to be that of the Supreme Court.[1]

In place of 10 days' notice of advance and 3 days' notice of reduction in rates, the law now requires 30 days' notice in either case. It is, therefore, less easy than before to make a temporary reduction which only a single shipper will know about ("midnight tariff") and by means of which he may secure an advantage over competitors. Both rates made by a single line and joint rates must be filed with the Interstate Commerce Commission and must be publicly posted, and, when joint rates have not been established, each carrier must

[1] See *Interstate Commerce Commission* v. *Illinois Central Railroad Company*, 215 U. S., 452.

file the rates which it applies to through transportation. The rate schedules filed must also state, separately, all terminal, storage, and icing charges, and all privileges and regulations which may affect the service rendered.

The Amendment of 1906 made effective the provision of the old law giving the Interstate Commerce Commission the authority to prescribe accounting methods. As we have seen,[1] there was, in the law of 1887, no way provided to compel the railroads to conform to a prescribed system. Hence the Commission did not attempt to establish an accounting system. The law now provides penalties for failure to conform or for refusal to submit books to the inspection of the Commission's examiners. The Commission has, therefore, prescribed an accounting system to be followed by all railroads engaged in interstate business. (This includes practically all, if not all, steam railroads in the United States, since a railroad which carries interstate shipments even over a short intrastate line, is engaging in interstate traffic.) The Commission has access at all times to the railroads' books, and may employ special examiners, and require monthly or special reports. No accounts, records, or memoranda may be kept by the carriers except such as are prescribed or approved by the Commission. Fine and imprisonment may follow violation of this rule. Fine or imprisonment or both may be imposed upon any persons who wilfully falsify or mutilate records or who neglect to make the proper entries. These accounting provisions of the law serve a double purpose. In the first place, they make difficult the concealment of illegal rates and favors. And secondly,

[1] § 3 of this Chapter.

they facilitate investigations as to the financial soundness of railroads by prospective investors.

The Act of 1906 also enlarged the membership of the Interstate Commerce Commission to seven, of whom not more than four might be of the same political party. It extended the term of office to seven years, and it raised the salary of the office of Commissioner to $10,000.

§ 5

The Amendment of 1910

The Interstate Commerce Law was further amended in 1910. One of the most important changes made related to section four, the "long and short haul clause." The amended act omits the words "under substantially similar circumstances and conditions," so that it is now illegal under any conditions for a railroad to charge more for a shorter haul than for a longer, over the same line and in the same direction, the shorter haul being included within the longer, unless the Interstate Commerce Commission permits such higher charge. We have already seen[1] that discrimination of this sort may sometimes be economically defensible. But it was felt that, under the old law as interpreted by the Supreme Court, such discrimination could go on where there was no really substantial economic justification for it and where it could easily be prevented by a proper law.

It was under the provisions of the amended fourth section that the Commission made its ruling, summarized in Chapter V,[2] with regard to discrimination in favor of Pacific Coast points and adverse to far western intermediate points. Water competition from coast to

[1] Chapter V. [2] § 4.

coast had caused the putting into effect of low through rates. These low rates had been made to apply from middle western points, such as St. Louis, as well as from New York, Baltimore, Pittsburg, etc. The Interstate Commerce Commission, in making a decision on the matter,[1] recognized that the conditions were such as might justify a certain amount of discrimination but endeavored to limit the extent to which it should be practiced. The Commission ruled that from Atlantic Coast points rates to intermediate far western points should not exceed rates to the Pacific Coast by more than 25 per cent., that from Buffalo and Pittsburg territory the corresponding difference should not be more than 15 per cent., that from Chicago territory it should not be in excess of 7 per cent. and that from Missouri River points the rates to far western points not on the coast should not at all exceed rates to the coast.[2] The fourth section of the Interstate Commerce Act specifically gives the Commission the power to prescribe the *extent* to which the long and short rule may be departed from. Nevertheless, this particular decision of the Interstate Commerce Commission was overruled by the Commerce Court, in the Intermountain Rate cases,[3] largely on the ground that, although the Commission was empowered by Congress to permit departures from the long and short haul principle, it was not empowered to determine any exact relation between different rates and was therefore exceeding its authority. But the right of the Com-

[1] Interstate Commerce Commission Reports, Vol. XXI, pp. 329–384.

[2] This order was modified somewhat, as to certain heavy commodities likely to move by water, early in 1915. The modification was for the purpose of allowing the railroads more easily to meet competition via the Panama Canal. (See Interstate Commerce Commission Reports, Vol. XXXII, pp. 611–658.)

[3] See 191 Fed. Rep., 856.

mission to make such an order was upheld, on appeal, by the Supreme Court.[1]

The new law, also, discouraged efforts of railroads to force out water competition by temporarily carrying goods at unremunerative rates. It required that rates reduced during competition with water transportation lines should not be restored to their former level until after a hearing before the Interstate Commerce Commission, and that before restoration of the rates should be allowed, changed conditions must be shown, other than the elimination of water competition.

The power to fix maximum rates in individual cases, after hearing given to the Interstate Commerce Commission in 1906, was extended in 1910 so as to authorize the Commission to suspend proposed rate changes. Whenever any new rate, fare, or classification, or any regulation affecting a rate, is filed with the Commission, that body may, either upon complaint or upon its own motion, undertake a hearing. It may suspend the operation of the rate or regulation temporarily, *i.e.* during the hearing, for not more than 120 days beyond the time when it would otherwise go into effect, and, if the hearing is not then completed, for a further period of six months. It may then, having heard the evidence, either allow or forbid the change.

Since rate schedules are now numerous and exceedingly complicated, it is provided, in section six of the law, that a shipper may ask for a written statement from a carrier, of the rate between stated places, under tariffs to which the carrier in question is a party, and that such a written statement must be given. Refusal or neglect to give such a written statement, as a consequence

[1] 234 U. S., 476.

of which the shipper suffers loss or damage, subjects the carrier to a penalty of $250, which goes to the United States government.[1]

The anti-pass clause has been changed by the inclusion among those who may receive free transportation, of necessary caretakers of milk, and by making the term "employees" include the disabled, infirm, pensioned and superannuated and their families, the bodies of employees killed in service, the families of such employees, and the widows and minor children of employees who die while in employment.

It has been made a misdemeanor for any common carrier, or any agent or employee of a common carrier, to give any information concerning the nature, route, or destination of the shipments of any shipper, when such information might be used to the injury of that shipper and to the benefit of a competitor. For any person to solicit such information is likewise unlawful. Such espionage has at times been practiced by powerful firms as a means of getting information regarding the business of smaller rivals, in order that the competition of the latter might be crushed.

Another of the changes made by the new law was the creation of a Court of Commerce, to which appeals from the decisions of the Interstate Commerce Commission should be carried instead of to the various circuit courts. It was believed that such a special court would be more efficient than the circuit courts, before which other business also came, and that the absence of other and sometimes prior business would tend to avoid delay. But the Commerce Court showed a disposition to decide

[1] If it were to go to the shipper, the law might be used, by conspiracy with the railroad, so as to gain what would be, in fact, a rebate.

cases adversely to the Commission's power (*e.g.* in the Intermountain Rate cases, above cited) and so aroused criticism. Furthermore, it did not appear necessary to maintain a special court for the purposes required. Accordingly, this court was abolished by an act of October, 1913, and (the circuit courts having meanwhile been dropped[1] from the Federal judiciary) its functions transferred to the various Federal district courts.

In 1910, the provisions of the Interstate Commerce Act were again extended, so as to apply to telegraph, telephone, and cable business, including wireless telegraphy.

§ 6

Later Legislation

The Panama Canal Act of 1912 added still further to the authority over joint rail and water transportation of the Interstate Commerce Commission. This body may now, when reasonably practicable and justifiable, establish physical connection between a rail carrier and the dock of a water carrier, by ordering one or both to lay connecting tracks. It may "establish through routes and maximum joint rates over such lines and determine terms and conditions under which such lines shall be operated in the handling of the traffic embraced." It may "establish maximum proportional rates by rail to and from the ports to which the traffic is brought, or from which it is taken by the water carrier," and may "determine to what traffic and in connection with what vessels and upon what terms and conditions such rates will apply."

[1] By an act passed in March, 1911, codifying and amending the Federal judiciary system.

The same act provides that no railroad or other common carrier subject to the Interstate Commerce Act shall own, lease, operate, control, or have any interest in any common carrier by water which does or may compete with it. The question of fact, as to the existence or possibility of such competition, is to be decided, in each case, by the Interstate Commerce Commission.

A law passed in 1913 provides for a physical valuation of railroads in the United States, to be supervised by the Commission.

§ 7

Summary

Our American form of government makes necessary the exercise over transportation companies of a twofold authority, that of the states and that of the nation. The states have jurisdiction over intrastate transportation, and the Federal government has jurisdiction over interstate traffic and rates. Both are limited in their regulating powers, by the constitutional prohibition as interpreted by the Supreme Court, against depriving persons of property without due process of law. The states have, for the most part, commissions, through which, to a large extent, they exercise their constitutional powers of control over railroads and railroad rates. The Federal government exercises control through the Interstate Commerce Commission. This Commission has authority over all important interstate carriers except those operating solely by water. Its authority extends to their rates, classifications, regulations, and practices. It may suspend proposed rate changes and it may determine when, and to how great an extent, the

rule of the long and short haul clause may be departed from. It may establish through routes and joint rates. Finally, various violations of the Interstate Commerce Law, such as the giving of discriminating rates, are subject to criminal prosecution by the Department of Justice, and may be punished by fine or imprisonment or both.

CHAPTER IX

Rulings of the Interstate Commerce Commission: Reasonable Rates

§ 1

Difficulty of the Interstate Commerce Commission's Rate-regulating Problem

The task of the Interstate Commerce Commission in administering the Act to Regulate Commerce has been, of necessity, one of great complexity and difficulty. Our study of the expenses of railroads and the relation of these expenses to the volume of traffic, of the variety of conditions to be met in carrying different commodities and serving different localities, of the distinctions between discriminations which are detrimental and those which are or may be beneficial to the general economic welfare, has served to emphasize the peculiar complexity of the railroad rate-regulating problem. Probably no other business does or would present quite so hard a problem from the point of view of price or rate regulation. Trolley companies, gas light companies, and, in general, public service industries other than railroads and some water carriers, sell but a few distinguishable services. Their work is comparatively homogeneous. To regulate the rates charged for such services, with due reference to cost, is a relatively simple matter. Even the great producing corporations which manufacture many by-

products have far fewer by-products than the railroads, if the term can be stretched to cover the various services of freight and passenger transportation.

Since the problem to be dealt with is so vast and difficult, it is not to be supposed that the Interstate Commerce Commission has made no mistakes in the application of rate principles which are themselves correct; nor, perhaps, can we reasonably expect that the principles laid down to justify decisions made, will, without exception, withstand critical analysis. But if, here and there, we find something to criticize, this should not make us regard the entire policy of rate regulation as a failure or blind us to the many benefits which regulation has brought. As a whole, the work of the Interstate Commerce Commission has been conscientious and efficient; and there can be little doubt that public regulation of some sort, even with its inevitable mistakes and shortcomings, is preferable to irresponsible corporation control.

§ 2

Reasonable Rates as Evidenced by Comparison

For the most part, though by no means always, the Interstate Commerce Commission has had to deal with individual rates or with a few rates — on specified goods or between specified places — rather than with rates as a whole throughout a wide territory. It has therefore many times been possible, even where discrimination as such has not been complained of, to test the reasonableness of a rate by comparison of it with rates between other points or on other goods.

Thus, in an early case involving rates on wheat from

Walla Walla City, Wash., to Portland,[1] Ore., the Interstate Commerce Commission, in ordering a reduction of rates, mentioned as matters proper to be taken into consideration in judging of the reasonableness of a rate, the rates charged for carrying the same commodity by other roads "as nearly situated as may be," and the diversities between the railroad in question and the roads with which comparison was made. Likewise in the Cincinnati Freight Bureau case,[2] the Commission said: "Where the reasonableness of rates is in question, comparison may be made, not only with rates on another line of the same carrier, but also with those on the lines of other and distinct carriers . . . the value of the comparison being dependent in all cases upon the *degree* of similarity of circumstances and conditions attending the transportation for which the rates compared are charged." [3] In another case, having to do with rates on surgical chairs,[4] the Commission asserted that where questions of classification and rates are involved as to a particular article of freight, it is often necessary to examine the classification and rates applied to other articles similar in value, bulk, and expense of handling and carriage, even though such other articles are not competitive with the first.

The reasonableness of a through rate has more than

[1] Interstate Commerce Commission Reports, Vol. I, pp. 325–339. Decided December 3, 1887.

[2] Interstate Commerce Reports, pp. 195–256. Decided May 29, 1894.

[3] Although it was in connection with this case that the Supreme Court handed down its decision interpreting the original Interstate Commerce Act as not giving the rate-fixing power to the Commission (see Chapter VIII, § 3), yet since the amendment of 1906 gave this power, this case and other early cases have importance as indicating the facts which the Commission is likely to consider in exercising it.

[4] Interstate Commerce Commission Reports, Vol. IV, pp. 212–227. Decided October 23, 1890.

once been judged by comparing it with the sum of two or more local rates. This standard was applied, for instance, in the famous Alabama Midland case.[1] A part of the complaint in that case was that on traffic from and to the North and East, the Alabama Midland railroad was charging a higher rate for the shorter haul to and from Troy than for the longer haul westward through Troy to Montgomery and eastward from Montgomery through Troy. But a considerable part of the complaint, also, had to do with rates from Troy to New Orleans and Ohio River cities compared with rates from Montgomery, and with rates from New Orleans and Ohio River cities to Troy as compared with rates to Montgomery. The rates from and to Troy were made by adding to the rates charged Montgomery the local rates between Montgomery and Troy. "The cost of the services in railway transportation," said the Commission, "is the expense of the two terminals and the intermediate haul. The terminal expenses remain the same without reference to the length of the haul. A local rate covers the expenses of *both* terminals, but a division of a through rate allotted to either of the terminal carriers of the through line can only embrace the expense of one terminal, and because of this difference in expense, among other reasons, local rates are made as a general rule much higher in proportion to the length of haul than through rates or any division thereof. A local rate, which presumably is adopted as covering both the initial and final expenses of the haul is *prima*

[1] Interstate Commerce Reports, Vol. VI, pp. 1–35. Decided August 15, 1893. The reader will recollect that, although the Commission was overruled in this case by the Supreme Court, the law has since been so amended as to give the former body all the regulating power it then claimed. See Chapter VIII, §§ 3 and 5.

facie excessive as part of a through rate over a through line composed of two or more carriers." Here is clear recognition and intelligent application of the fact that terminal expenses vary somewhat as the volume of traffic, but not at all as the distance it is carried.[1] Yet in the Savannah Naval Stores case,[2] the Commission allowed the Louisville and Nashville to collect, as its share of the rate for carrying certain goods eastward, an amount equal to its full local rate for corresponding distances westward. The discrimination complained of was decreased in extent, it is true, by the requirement of a reduction in certain of the rates charged. But the Commission seems, here, not to have upheld consistently and strictly its view that a through rate which is the sum of local rates is *prima facie* excessive.

It must be admitted that to judge of the reasonableness of rates by comparing them with other rates, is to apply a standard which may itself be far from the ideal. The rates with which comparison is made may themselves require readjustment. Yet, though not altogether satisfactory as an ultimate test, the method of comparison may have value as supplementary evidence, and as establishing a presumption that rates are or are not reasonable. Furthermore, the practical difficulties in the way of accurately applying a more fundamental test, or tests, are often very great. As we have already noted,[3] many of the expenses of a railroad are joint expenses which cannot be definitely allocated to different parts of the business done. Different transportation services must usually contribute in different proportions towards

[1] Cf. Chapter I, §§ 2 and 3.

[2] Interstate Commerce Reports, Vol. VIII, pp. 377–408. Decided January 8, 1900.

[3] Chapter I, § 2.

these joint expenses. But in what proportions? The determination of this problem, even if all the data as to special costs and joint costs are at hand, is likely to be a most difficult one. Even constant experiment by no means always determines it correctly. What more natural, then, than for the Interstate Commerce Commission to seek to compare rates complained of as unreasonable, with rates for somewhat similar transportation services on the same or other roads, rates often voluntarily established by the carrier or carriers concerned, and as to which there is so much presumption of their reasonableness as is afforded by their not being matters of complaint?

§ 3

Reasonable Rates as Tested by Cost of Service

Cost of service, whether in the case of transporting particular goods, of transportation between particular places, or of transportation in general on a particular railroad or through a given territory, has many times been the determining consideration in the Commission's rulings as to rate reasonableness. In a complaint brought by the Delaware State Grange, concerning high rates on specified perishable truck-farm products, the Commission, though ordering certain reductions, pointed out that for such a special service as the transportation of perishable freight, requiring quick movement, prompt delivery, special fitting up of cars, and return of cars empty in fast time, higher rates than on ordinary traffic were justifiable. In other words, the rate might be higher to compensate for higher expense.

A complaint directed against the Western New York

and Pennsylvania Railroad, shortly after the passage of the original Interstate Commerce Law, by Rice, Robinson, and Witherop, had to do with the reasonableness of the rates charged by that road for the transportation of oil from Titusville, Va., to Buffalo, N. Y. The Interstate Commerce Commission dismissed the case chiefly on the ground that the transportation was on a short local line, having only a small volume of business, and having, for this reason as well as because of steep grades, a high average cost of service.

Again, in the Cincinnati Freight Bureau case,[1] when deciding on maximum rates [2] for the transportation of manufactured goods from Cincinnati and Chicago to southern points, the Commission gave consideration to the greater average cost of transportation on southern roads than on railroads north of the Ohio River. "The cost on freight in general per ton per mile on the roads south of the river," it was said, "appears to have been . . . about 25 per cent. on an average greater than the cost per ton per mile on the roads from Chicago to the river. The tonnage of the latter roads is also greater than that of the former as shown in the tables. Rates from Cincinnati to Southern territory from 35 to 50 per cent. higher per ton per mile than those from Chicago to Cincinnati and other Ohio river crossings will, in our opinion, make full allowance for these differences in cost and tonnage, and be at least not unreasonably low as maximum rates." The Commission has also recognized that rates may properly be exceptionally low, if no loss is involved, to induce the movement of traffic

[1] Interstate Commerce Reports, Vol. VI, pp. 195–256. Decided May 29, 1894.

[2] Which rates, in the then state of the law as interpreted by the Supreme Court, were not enforceable. See Chapter VIII, § 3.

in a direction in which there is a considerable movement of empty cars.[1]

§ 4

Earnings as a Test of Reasonableness

In a number of cases, the Commission has laid emphasis, in reaching its decisions, on the earnings of railroads. In the Danville, Va., case,[2] they defended (in part) an order the enforcement of which would have compelled the Southern Railway to reduce very considerably the rates charged on traffic to and from Danville, by arguing that such reduced rates would be likely to increase the business done at Danville and, therefore, the traffic of the railroad, and that the loss from reduction would, in consequence, not be important. They even suggested that the order made might later be modified in favor of the company in case the adverse effects upon *earnings* proved more serious than was expected.

But it frequently happens that a rate complained of concerns two or more different railroads which are rivals for the traffic in question. Under such circumstances shall the earnings of one or another or of all the roads be considered in arriving at a decision as to the reasonableness of rates charged? This question came before the Interstate Commerce Commission in the Spokane case,[3] shortly after the passage of the Hepburn Amendment of 1906, and again in the case of the *Receivers and Shippers Association of Cincinnati* v. *Cincinnati, New Orleans &*

[1] Interstate Commerce Reports, Vol. VI, pp. 61–84. Decided October 20, 1893.

[2] *Ibid.*, Vol. VIII, pp. 409–442 and 571–584. Decided February 17 and November 17, 1900.

[3] Interstate Commerce Commission Reports, Vol. XV, pp. 376–426. Decided February 9, 1909.

Texas Pacific Railway Company.[1] In the former case the complaint related to rates from St. Paul, Minn., and Chicago, Ill., to Spokane, Wash., which were alleged to be not only discriminatory against Spokane as compared with coast points, but also unduly high. The Commission, which had now the power to fix maximum rates, established such rates for traffic from St. Paul and Chicago to Spokane. But the Commission took occasion to lay down the principle that in determining what rates are reasonable between two given points, neither the railroad which can carry goods at the lowest rate nor the road whose necessities might justify a higher rate should alone be considered. Rates must be fixed with reference to the entire situation. "The city of Spokane could not develop if served by the Great Northern Railway alone; nor can we look wholly to the interest of Spokane. The whole territory served by these defendant lines must be considered and the existence of all those railroads to that territory is absolutely essential. These railroads cannot exist unless rates are established which will yield a fair return upon their property."

In the Cincinnati case, the Receivers and Shippers Association of Cincinnati complained of the unreasonableness of the rates charged on traffic from Cincinnati, Ohio, to Chattanooga, Tenn., and demanded a substantial reduction. It was shown that the profits of the most direct and favorably situated line, the Cincinnati, New Orleans, and Texas Pacific Railway, were large, and that it could well afford to make the reduction sought for. But traffic between Cincinnati and Chattanooga was also carried over the Louisville and Nashville Railroad

[1] *Ibid.*, Vol. XVIII, pp. 440–477. Decided February 17, 1910.

and its connecting line, the Nashville, Chattanooga, and St. Louis. These lines, though solvent, did not appear to be nearly so prosperous. The Commission again contended that the interests of all lines should be considered and not merely the interest of the line which could take the traffic most cheaply. Although a reduction was ordered, this reduction was too inadequate to satisfy the Shippers Association and that body made an unsuccessful appeal to the Commerce Court on the curious ground that the Commission, by establishing such high rates — which were maxima and not minima — was depriving shippers of property without due process of law.

Our interest is with the economic justification for considering the earnings of all the lines concerned rather than the earnings of the direct and favorably situated line only. Should a railroad which can afford to carry goods between two points, *e.g.* Cincinnati and Chattanooga, at low rates, be allowed to charge high rates and enjoy a per cent. profit much above the average, in order that another road — more roundabout or otherwise less efficient for the business in question — may also secure profits from such business in excess of cost of operation? In the absence of special circumstances, it would seem that two communities were entitled to a transportation rate between them, which would yield fair profits to a railroad as advantageously located as could be expected from average managerial and engineering ability and that a higher rate would be unreasonable. A higher rate would involve an unjust distribution of wealth; also it would tend to prevent commerce which was worth its cost and ought to take place.[1] If a rail-

[1] Cf. Chapter I, § 8, and Chapter II, § 6.

road connecting the same two places by another route could not afford to charge equally low rates and could not get enough profitable intermediate traffic to make it a paying proposition, it ought not to be built. Two trade centers, *e.g.* Cincinnati and Chattanooga, ought not to have to pay rates above reasonable cost and profits by the cheapest practicable route, and so have their industrial and commercial development retarded, in order to make possible the construction of another line to run through and serve various local points. Thus to make some communities contribute to the welfare of others is to discourage industry in the former and encourage it in the latter; it is to interfere uneconomically with the location of industry. If the most economical railroad could not carry all the traffic, additional trackage should be constructed sufficient for the end in view, unless another and, perhaps, a more roundabout railroad could take so much local traffic as to enable it to carry the longer distance traffic just as cheaply as the more direct line.[1]

The qualifications which must be made to this principle would appear to be of minor importance. It will sometimes be the case that the entire traffic between two given points cannot be carried by the most direct line unless it increases the size of its plant, *e.g.* unless it lays an additional track, buys more cars and engines, etc. Yet the additional traffic so securable may not be enough fully to utilize the new facilities. Rates which yielded an adequate return on the smaller and fully utilized plant may not be quite high enough to yield correspondingly adequate returns on the larger plant. Rates which would justify such additional construction

[1] Cf. Chapter II, § 2, and Chapter V, § 1.

would, of course, be more remunerative to rival lines less advantageously situated than lower rates would be. By carrying some of the longer distance traffic at rates no higher than these, they might obviate the necessity of additional trackage by the most direct line, to the general advantage of the community. Such possibilities ought, perhaps, to be considered in fixing maximum rates, but to say this is hardly the same thing as to say that rates between two points ought to be fixed with reference to the earnings of railroads having the longest and most expensive as well as those having the cheapest routes.

Again, it may conceivably happen that the cheapest possible route runs along a river bank, or through gorges, and that available space is so limited as not to allow of sufficient tracks, on this route, to provide for all the traffic between the points in question. Under such circumstances, which are, in a high degree, special, the rates allowed probably ought to be high enough to yield ordinary profits by one or more other lines, since such other lines are necessary for the transportation of goods between the points in question and should not be expected to give those places special rates at the expense of intermediate towns. The more favorably situated railroad enjoys a surplus which is, economically, situation rent.

It may be desirable, then, in judging of the reasonableness of rates between two given places, to consider "the whole situation" as the Commission has said that it will do. But in the absence of such special circumstances as those above alluded to, emphasis should be put chiefly on the earnings of the railroad which can do the work most cheaply. Rates should be so fixed as to

give such a road average returns, unless the selection of its route required *exceptional foresight and ability*, in which case returns somewhat above the average are fairly earned.

In this same case, *i.e.* that of the *Receivers and Shippers Association of Cincinnati* v. *Cincinnati, New Orleans & Texas Pacific Railway Company*, the Commission contended that "the main line should in a degree contribute to the support of the branch line, for the branch-line business when it reaches the main line is surplus traffic, from which a larger profit is made. . . . It hardly seems proper to fix the rates upon the Cincinnati Southern [the line leading from Cincinnati to Chattanooga, operated by the Cincinnati, New Orleans & Texas Pacific Railway Company], which is really a main line, without any reference to the branch lines which contribute to it." This view can hardly be defended. In the first place, the branch-line business, when it reaches the main line, is no more "surplus" traffic than local business may be. If the road was built primarily for the through traffic, it would even seem *more* fitting to speak of the local traffic as surplus. Where roads connect and make joint rates, it is proper that each should receive a share of such rates based on its conditions of operating cost, volume of traffic, etc., but this does not mean that one line "contributes" out of surplus revenues towards the earnings of another. A branch line is sometimes spoken of as yielding no profits directly, but as being valuable to a main line as a feeder. When the main line owns the branch line it is a mere matter of accounting convenience or even accident, how large a share of a through rate is assigned to each part. An important feeder may thus be made to appear altogether

unprofitable of itself. But if it were a separate company, separately operated, and turning over large and profitable traffic to a main line, it ought to have a sufficiently large share of the rate to give it, with good management, a reasonable return. If it is really worth while as a feeder, it ought to be able to exist under separate management as well as under control of the main line. In fixing a through rate, it is of course only fair that both branch and main line should be considered to the extent of not making the rate so low as to be, if properly divided, unremunerative to either; but there is no excuse for allowing exorbitant main-line rates — as the Commission itself would doubtless declare, were the question clearly presented — merely because one or more branch lines or feeders are earning only average or small returns.

The Rate Advances cases of 1910 and 1914 turned very largely on the question of sufficiency of earnings. In 1910 the railroads in Official Classification Territory,[1] and in Western Trunk Line, Trans-Missouri, and Illinois Freight Committee territories filed important freight advances which the Interstate Commerce Commission, under the power given it by the Amendment of 1910 to the Interstate Commerce Act, suspended temporarily pending investigation.[2] The railroads had no difficulty in establishing the fact that expenses, both the money prices of materials and the money wages of labor, had risen; but it appeared that their traffic also had increased greatly, so that their earnings during the immediately preceding fiscal year had been more satis-

[1] Lines east of Chicago and the Mississippi River and north of the Ohio and Potomac rivers.

[2] See Interstate Commerce Commission Reports, Vol. XX, pp. 243–306 (eastern roads), and pp. 307–399 (western roads). Decided February 22, 1911.

factory, perhaps, than ever before. Some attempt was made to show that, during the few months after the close of the fiscal year, conditions had been less favorable to the railroads. On the whole, however, the Commission was not convinced that earnings were inadequate and it therefore required the new rates to be withdrawn.

In 1914, the railroads in Official Classification Territory, in the so-called Five Per Cent. case,[1] again sought permission to increase their charges. They contended that the rate of return on capital invested was declining, that this was due to increased expenses of operation, and that it tended seriously to injure the credit of the railway companies. The Commission was considerably impressed with the deficiency of revenue, but believed that it was due, in part, to the fact that many special services were being rendered to shippers with no charge or an inadequate charge, and in part to the fact that certain rates were unremunerative. A general rate advance, they believed to be a relatively undesirable method of restoring revenues to a proper basis. They permitted, however, many of the advances desired in Central Traffic Association Territory, *i.e.* in that part of Official Classification Territory lying west of Buffalo and Pittsburg.

The outbreak of the European war tended, by diminishing traffic, still further to reduce net revenues, and the Commission was induced to give the appeal for higher rates a rehearing.[2] Extension of the increased rate, over the rest of Official Classification Territory, was permitted.

[1] *Ibid.*, Vol. XXXI, pp. 351–454. Decided July 29, 1914.
[2] *Ibid.*, Vol. XXXII, pp. 325–354. Decided December 16, 1914.

§ 5

Reasonable Rates in Relation to the Fair Value of Railroad Property

To say that transportation rates should yield adequate revenues is to say that the revenues yielded should bear a proper relation to the fair value of the property. This is to make the rates required depend, in large part, on the value attributed to the railroad.

But how is this value to be determined? In *Grain Shippers' Association of Northwest Iowa* v. *Illinois Central Railroad Company et al.*,[1] involving rates for the transportation of grain eastward from northwest Iowa, the matter of capitalization was raised by the defense, among other arguments, as a reason why rates should not be reduced. The Commission said, however, that if the capitalization of a railroad was to have consideration in cases involving rate readjustment, the statement of it should be accompanied by a history of the capital account, by a showing as to the value of the stock and other securities, and by a statement of the actual cost and value of the property itself. They went farther than this, in fact, and asserted that to make the capital account of railroads a standard of legitimate earnings (and, therefore, a standard by which to fix rates) would place at great disadvantage the company which had been honestly managed from the start. The thought is, obviously, that such a test would give grounds for the overcapitalized road to seek higher rates, in order to earn dividends on such excess capital, than were charged by the other railroads; whereas the conservatively

[1] Interstate Commerce Reports, Vol. VIII, pp. 154–184. Date of decision not given, but was apparently early in 1899.

managed company would be refused such permission. The history of the capital account, however, would show whether securities issued had always been based on actual investment; the market value of securities, though not at all a satisfactory test of rates, since such market value itself depends largely on the rates, may have *some* independent value, for market value of securities depends partly on sustained good management, including the element of good will. The actual cost of the property would mean original investment, on which, under average circumstances, the railroad might fairly expect reasonable return; and the value of the property — in the sense of physical value — would probably be a better standard, taken by itself, than any other. But each standard, aside from its independent significance, may have a bearing upon the correctness of the other standards. For example, the history of the capital account and the market value of the securities of a railroad may sometimes serve to confirm a conclusion independently reached regarding the value of its plant.

A similar attitude was taken by the Commission, in 1900, in the Danville, Va., case,[1] when it was urged by the Southern Railway Company, that no order could properly be made reducing rates to and from Danville, which would have the effect of decreasing the railroad's revenues, since in 1899 it had earned nothing upon $120,000,000 of common stock. The Commission replied that this common stock "was issued as a part of a reorganization scheme under which the Southern Railway Company came into existence. It does not appear that the persons to whom this stock was originally issued ever

[1] *Ibid.*, Vol. VIII, pp. 409–442 and 571–584. Decided February 17 and November 17, 1900.

paid one dollar in actual value for it. It simply appears that the stock is outstanding. This is not enough. Something more is needed when a claim of this kind is set up than the mere fact of the existence and amount of capitalization. It does not rest in the whim of a reorganization committee in Wall Street to impose a perpetual tax upon that whole southern country."

In the same case and the same connection, the Commission seems to place emphasis upon the physical value of the plant as a criterion of fair value and a test of rates. They continue: "In the year 1899 the Southern Railway earned net about 4 per cent. on $40,000 a mile of the mileage of its entire system. That system extends, as a rule, through sparsely populated territories, no difficult and expensive engineering feats were involved in its construction, nor has it in proportion to its extent many expensive terminals. It will hardly be claimed that the cost of reproducing that property in its present state would equal $40,000 a mile." Perhaps the showing made by the railway company in this case would have been sufficient to prevent the issuance of an order for a general reduction of rates throughout its territory, had such a question been before the Commission. But it was not deemed a sufficient reason why rates to and from Danville, which was admittedly discriminated against, should not be reduced.

That the Commission regards the physical value of the plant as an important, if not the most important, standard by which to judge general rate reasonableness, is evidenced by the discussion, in the Twenty-third Annual Report of the Interstate Commerce Commission,[1] of the necessity for a physical valuation of all railroads.

[1] P. 6.

"There is," the Commission said, "in our opinion, urgent need of a physical valuation of the interstate railways of this country. . . . Even assuming that the valuation of our railways would be of no assistance to the Commission in establishing reasonable rates, it is still necessary, if those rates are to be successfully defended when attacked by the carriers, that some means be furnished by which, within reasonable limits, a value can be established which shall be binding upon the courts and the Commission."

In deciding, in 1911, the question of rate advance by eastern roads,[1] the Commission again discussed the various methods of determining the correct value on which earnings ought to be allowed. "Were it possible to determine," they said, speaking of original investment, "the exact amount of money which has been put into these properties, the amount of return which has been paid up to the present time, the degree of prudence with which the property has been constructed and operated, certainly the investment would furnish a very satisfactory basis for arriving at an equitable return. But these facts never can be determined with accuracy." The market value of securities, the Commission thought, ought to have some significance, for two reasons. In the first place, this market value did, indeed, depend upon the rates which had been charged, but those rates had been determined, in the past, largely by competition, so that, on the average, they were perhaps not above the level of reasonableness. In a proceeding brought to secure permission for charging higher rates, the fact that existing rates yielded, for many railroads, fairly

[1] Interstate Commerce Commission Reports, Vol. XX, pp. 243–306. Decided February 22, 1911.

good returns on the market value of their securities might be a reason for opposing higher rates. In the second place, whether past rates had or had not been reasonable, they had been permitted, and the value of securities had been determined on the basis of the height of those rates. These securities had been bought and sold, and were held by persons who had invested in them on this basis. Hence, it was proper that some regard should be paid to the question, whether future rates would earn an average per cent. profit on the market value of such securities. Undoubtedly it is proper that such facts should be given some consideration. But that does not mean, and it is not probable that the Commission understood it to mean, that the public, if it has, for a time, allowed rates which yielded a surplus above fair profits, must continue so to sacrifice through all future time, in order to preserve so-called vested rights. It is well enough to "make haste slowly," but investors must nevertheless be held to have taken the risk of change, knowing that the public has the right to regulate when public welfare demands, and may exercise that right by reducing rates. To take a contrary attitude would be to say that the public can never pass a new law which affects any person's finances unfavorably, or levy any new tax, without compensating the persons unfavorably affected. The Commission spoke of cost of reproduction as "perhaps the most important" of the various standards discussed, but was unable to apply it because no physical valuation of the railroads had been made. Yet in discussing the case of the western roads,[1] the Commission says: "Perhaps the nearest

[1] Interstate Commerce Commission Reports, Vol. XX, pp. 307–399. Decided February 22, 1911.

approximation to the fair standard is that of bona fide investment — the sacrifice made by the owners of the property — considering as part of the investment any shortage of return that there may be in the early years of the enterprise. Upon this, taking the life history of the road through a number of years, its promoters are entitled to a reasonable return." But the Commission continues: "This, however, manifestly is limited; for a return should not be given upon wastefulness, mismanagement, or poor judgment, and always there is present the restriction that no more than a reasonable rate may be charged." It appears, therefore, that the Commission could not favor allowing profits to be earned, on the full cost of a wastefully built railroad or of a railroad built, because of poor judgment, along an uneconomical route. The original cost of investment, as a standard, is so qualified as to suggest present cost of reproduction, along the best practicably available routes, of the railroads required.

In presenting the case for higher rates, the Chicago, Burlington and Quincy Railroad, in particular, laid emphasis upon the view that rates should yield a profit on the total value of the railroad property, including the present value of the land used for terminals and right of way. The Commission thought that the railroad's gain from increased value of its real estate should come by means of larger traffic rather than higher rates, that higher rates could not be justified merely by proving higher value of land, and that existing rates were sufficient to give fair returns on the full value of the land space used. The Commission at least did not deny that a wisely located and efficiently managed railroad should be allowed to earn, besides fair return on cost of build-

ing, as much as the land used would yield in other business.[1] Any other principle would be discriminating against the railroad business as compared to other kinds of business.

§ 6

Efficiency of Management in Relation to Reasonable Rates

Attention has already [2] been given to the view of the Interstate Commerce Commission that a return "should not be given upon wastefulness, mismanagement, or poor judgment." In connection with the discussion of the same case, the Commission emphasized its belief that "some method must be found under which a carrier by its own efficiency of management shall profit. A premium must be put upon efficiency in the operation of the American railroad." And the way in which this could be done, in the judgment of the Commission, was by not allowing rates to be increased merely because management was wasteful, corrupt, or indifferent, nor yet insisting that they be decreased where management was exceptionally wise and skillful, but by allowing the security holders of the railroads to reap larger or smaller returns according to the honesty and efficiency with which their corporations were managed. In considering the case of the poorer roads in Western Territory, the Commission again emphasized this view, saying: "It is almost axiomatic that rates cannot be made so as to give high earnings to a poorly placed, indifferently

[1] Assuming, of course, that transportation facilities could be had for the products of such business. *All* of the railroad land should be valued by reckoning from the worth of a marginal increment of such land.

[2] § 5 of this Chapter (IX).

operated, or isolated road without making the rates absolutely extortionate." And again, in the Five Per Cent. case,[1] the Commission said: "No one could reasonably contend that the public should pay higher transportation rates because once prosperous properties — like the New Haven, the Chicago & Eastern Illinois, the Alton, the Frisco, or the Cincinnati, Hamilton & Dayton — may now be in need of additional funds as a consequence of mismanagement. Investors in railroad securities must also take the risks of those errors of judgment which not infrequently attend even the careful management of enterprises conducted for profit. But they should likewise be permitted to enjoy fully the profits which naturally flow, under a reasonable scale of rates, from the exercise of good judgment, integrity, and efficiency in the management of such properties. While the right to demand a higher rate may be denied when the existing charge is reasonable, even though the particular carrier may be in need of additional earnings, so a carrier may be entitled to a higher rate for a particular service because the existing rate is unreasonably low, although the carrier may not be in need of additional revenues."

§ 7

Summary

In the first section of this chapter, emphasis was laid on the difficulty and complexity of the railroad rate-regulating problem, flowing from the variety of railroad services and the factor of joint costs. We then considered various tests as to the general reasonableness of

[1] Interstate Commerce Commission Reports, Vol. XXXI, pp. 351–454. Decided July 29, 1914.

rates, which have been applied by the Interstate Commerce Commission. We found that, in considerable degree, the Commission has been guided in its judgment of reasonableness by comparison of rates complained of with rates on like goods, with rates for like distances on other railroads where conditions appeared somewhat similar, and with rates between other points than those in question, on the same railroad. Though we saw that the test by comparison could hardly be an ultimate test, we recognized that it has considerable value even as a test of general reasonableness.

The reasonableness of rates has been judged by the Commission, to a large extent, in connection with ascertainable facts regarding cost of service. Special costs involved in the transportation of particular commodities have been held to justify higher than average rates. So, also, high average costs, due to lightness of traffic, have been held to justify high rates. The earnings of a railroad have been regarded as having a bearing on the rates which may be charged. But in judging of the rates between two given points, the Commission has said that it will consider the rates of all the roads and not merely of the cheapest. Our conclusion was that two places are ordinarily entitled to a rate between them based on what the cheapest practicable route would have to charge, but that under particular circumstances the earnings of a relatively roundabout and uneconomical route might properly be considered in fixing rates.

The earnings allowed should be a reasonable return on the fair value of railroad property. The Commission has indicated that it considers fictitious capital no part of this fair value, but has not been exactly clear as to whether original investment or present physical value

is the fairest basis for rate regulation. In practice, it seems to tend toward the latter. But the degree of efficiency of management is not to be lost sight of. Rates must yield average returns on investment when management is reasonably efficient. Lower rates should not be made where and because management is exceptionally efficient, nor should inefficiency be an excuse for higher rates.

CHAPTER X

Rulings of the Interstate Commerce Commission: Discrimination among Places

§ 1

Undue Preference in Relation to Distance

The third section of the Act to Regulate Commerce forbids, among other things, any undue preference or advantage to any particular locality and, therefore, by implication, *against* any locality. But what is such preference or advantage?

One of the earliest cases before the Interstate Commerce Commission[1] was a complaint by the Boston Chamber of Commerce that rates from Chicago and some other western points to Boston were unduly high as compared with the rates to New York City and as compared with export rates via Boston, and constituted undue preference and advantage to New York. The Commission held that the export rates had been made for the purpose of putting Boston on an equality with New York and other seaboard cities wherever it was a competitor with them. But the haul was longer to Boston than to New York and the traffic less in volume, and in other ways New York had advantages over Boston. The higher local rates to Boston than to New

[1] Interstate Commerce Commission Reports, Vol. I, pp. 436–464. Decided February 15, 1888.

York were therefore upheld as not being unduly discriminating. Difference in conditions, including *difference in distance* and other facts, was the determining consideration.

In another early case,[1] decided in 1888, the complaint came from the Detroit Board of Trade and the Detroit Merchants' and Manufacturers' Exchange and was to the effect that Detroit was discriminated against by the Grand Trunk and the New York Central railroads. It was asserted that the rates to Detroit from the East and from Detroit to the East were 78 per cent. of the Chicago rate, whereas they should be only 70 per cent. if fixed on the basis of *comparative distance* and of geographical position. It was also asserted that Detroit was unjustly discriminated against, because the percentage of the through rate on freight passing *through* Detroit, east or west, was lower than the corresponding rate from or to Detroit. But the Commission refused to accept the contention that a local rate ought to be as low as a proportion of a through rate when the proportional distance was equal to the distance provided for in the local rate. The through and the local traffic were said to be carried under such different circumstances and conditions as to make such a rule as the complaintists favored, inapplicable.

In a case decided during 1890,[2] the complainant, owning two blast furnaces at Poughkeepsie, N. Y., alleged that rates from Poughkeepsie to points in Massachusetts were unduly high, that the carriers concerned received a less sum for transportation over the *same distances* to the same markets when the goods came from Youngs-

[1] *Ibid.*, Vol. II, pp. 315–323. Decided October 22, 1888.
[2] *Ibid.*, Vol. IV, pp. 195–211. Decided October 20, 1890.

town, Ohio, and other points west of Albany, N. Y., and that these rates gave undue preference to Youngstown and other western points and to shippers there located. The Commission again emphasized the view that rates per ton mile could not be required to be the same on through as on local traffic, since the services were different. Through rates on long hauls more usually than local rates on short hauls were said to encounter water competition, and for this reason as well as others, are made lower *in proportion to distance.* Western producers of pig iron shipped into New England over railroads which had to meet water competition. Southern producers shipped to New England by sea. The principal disadvantage of the Poughkeepsie blast furnaces was in a higher cost of production than that of their western and southern rivals. The transportation rates charged were not shown to be unreasonable. The Commission would not lower the rates from Poughkeepsie and it neither would nor could raise the rates from western producing points. It did not, apparently, regard the alleged preference as undue.

§ 2

Undue Preference in Relation to Natural Advantages of Location

In the Howell milk case,[1] decided in 1888, the burden of the complaint was to the effect that the railroads leading to Jersey city, and carrying milk to the New York market, were charging a blanket rate for all milk shipped, regardless of whether the traffic originated (to take one of the

[1] Interstate Commerce Commission Reports, Vol. II, pp. 272–300. Decided September 24, 1888.

roads, the Erie, as an example) at points 21 miles or 183 miles from Jersey City. It was contended that the nearer points should have lower rates and that, therefore, the blanket rate system subjected them to unreasonable disadvantage as compared with what their location entitled them to. The Commission, in the course of its discussion of the case, called attention to the fact that although expenses for receiving and delivering freight, *i.e.* the so-called terminal expenses, including the use of terminals and other facilities, are substantially the same, however far the traffic moves, so that rates ought not to increase in proportion to distance; yet, ordinarily, rates ought to increase somewhat as distance increased. But in the particular case before them, it appeared that most of the expenses, including many which were not terminal expenses, were not greatly affected by the distance the milk was carried. The practice of charging a blanket rate was therefore upheld as not being unduly discriminatory against the nearer points.

A system of group rates was likewise sustained in a decision during 1889 [1] involving rates on coal shipped to Lake Erie from points covering an area within a radius of forty miles about Pittsburg, Pa. The complainants, located in the center of this district, and shipping to Cleveland, Ohio, thought that their greater nearness to the Lake Erie market should entitle them to lower rates than their competitors, whose situation was less favorable. The Commission, however, upheld the blanket rate system. The rates complained of were not in themselves unreasonable. Higher rates from the more remote mines would be beneficial to the railroads as well as to the complainants, provided traffic was not thus decreased;

[1] *Ibid.*, Vol. II, pp. 618–644. Decided March 23, 1889.

but such rates would be likely to diminish the business of the carriers unless the nearer mines could supply the entire market. Otherwise, the Commission suggested, much of the market might be supplied by coal from mines situated on other railroads. It followed that the group rate made by the defendants, while seemingly discriminating against the nearer points, perhaps enabled coal to be shipped from the farther points, thus contributing towards the revenues of the railroads and making possible a more reasonable rate even from the nearer points to market than might otherwise be necessary. The preference and advantage, therefore, was not regarded by the Commission as undue or unreasonable.

In a previous chapter,[1] we saw that there may sometimes be economic justification for the transportation of goods from a longer distance source of supply than from a nearer source, to the same market, even though production costs, exclusive of transportation, are the same; for the longer transportation line may be able to pay more of its relatively constant expenses from its intermediate traffic. Yet such a longer line may not be able to afford to make its intermediate rates correspondingly low in relation to distance. The argument presented in Chapter V[2] might justify a blanket rate, even, perhaps, *lower* rates from the longer distance point, over the longer line. But if the argument thus presented is correct, similar discriminating rates over all possible lines leading to a common market would probably be economically undesirable, even though the discrimination did not involve *lower* rates but only *as low* rates,[3] from the more

[1] Chapter II, § 4. See, also, Chapter V, § 2. [2] §§ 1 and 2.

[3] In Chapters II and V only the problem of *lower* rates for the longer distance was discussed, but the principles brought out can easily be extended to cover the more general problem of discrimination.

distant points. When, as was asserted to be the situation in the Howell milk case, the actual costs are nearly the same for all distances, a blanket rate is substantially fair. But when the actual costs, because of greatly different distances, are substantially dissimilar, a blanket rate, with the exception above noted in the case of a longer line, is probably without economic justification. And even in the case of such a longer line, there is a limit beyond which the system of a blanket rate ought not to extend, for if the sources of supply on such a line are at widely different distances from the market, the extra cost of hauling from the longer distance points becomes so considerable that an equally low rate — if reasonable for the nearer points — would involve carrying at a loss. Furthermore, as was pointed out in earlier chapters,[1] if restrictions are, as indeed they ought to be, put on discrimination by the railroads carrying to market over a shorter distance, railroads carrying goods over longer distances cannot properly be left entirely without restrictions.

In 1897 the Interstate Commerce Commission decided a case brought by the Milk Producers' Protective Association against the railroads serving New York and Jersey City. The complaint was that a blanket rate was being charged for the transportation of milk and cream from points nearer than 50 miles and as far as 340 miles from the New York City market.[2] In this case, the Commission was convinced that the cost of rendering the service was not, as in the Howell case they thought it *was*, substantially the same for all the distances involved,

[1] Chapter II, § 2, and Chapter V, §§ 1 and 2.

[2] See Interstate Commerce Reports, Vol. VII, pp. 92–175. Decided March 13, 1897.

but that it cost something more, in wear and tear, etc., for every additional mile the milk was carried, and that the total cost for the longer distances was very appreciably greater than for the shorter. The extreme distances from which the milk was carried to New York were much greater than in the Howell case. The practice was, therefore, held to be unduly prejudicial against the nearer producing points and to deprive them of an advantage to which, because of their nearness to the market, they were fairly entitled. The Commission, accordingly, ordered the establishment of a number of zones, including, respectively, all points within a radius of 40 miles of the New Jersey terminal, all points between 40 and 100 miles from Jersey City, all points between 100 and 190 miles, and all points beyond 190 miles. The rate from all points within any zone was to be blanketed, but the rates from the nearer zones were to be lower than from the farther.[1]

So far as the blanket rate on milk for differences of distance amounting to several hundreds of miles tended to encourage the production of milk far from the metropolitan market and so discourage its nearer production, at the expense of greater actual cost of transportation, the system was uneconomical and the order forbidding it was justifiable. All the railroads leading into Jersey City and New York from different directions had been applying the blanket system of rates. An order for its discontinuance directed against any one road would have subjected that road to a great disadvantage as compared with its competitors going through other milk-producing regions. But an order directed against all the railroads

[1] There were some minor modifications of the scheme, which we need not here discuss.

concerned would tend to raise the plane of competition, would do away with an economically wasteful policy, and would yet leave the different railroads, for the most part, in the same relative situations as before. In such a case as this, there is not likely to be any adequate reason for making concessions from the rule to lines serving the more distant sources of supply, in order to put all the roads on a par and enable the longer to compete; for milk can be produced at almost any point on almost any of the lines. Such concessions, therefore, if made at all, would probably have to be made to all the roads, and would introduce an uneconomical principle of rate making without serving any good purpose. All of the roads are, probably, about on a par if concessions are made to none. On the whole it would seem that, in this instance at least, the attempt to preserve for each district its natural advantages of location had been most commendable. Furthermore, even if the circumstances which would justify some extension of a blanket rate were present, there would still be limits beyond which it should not be applied, and it would be a matter for special consideration in each case, when those limits were passed.

In the Eau Claire lumber case,[1] the right of a producing center to its natural advantages of location was again discussed. Eau Claire was a lumber-producing point in Wisconsin on the Chicago, Milwaukee and St. Paul Railroad. The lumber was marketed at points on the Missouri River, where the lumber-producing interests of Eau Claire met competition from lumber-producing points farther south along the Mississippi River, but particularly from the near-by points, Winona and La

[1] Interstate Commerce Commission Reports, Vol. V, pp. 264–298. Decided June 17, 1892.

Crosse. The system of rates in question had been established in 1884 by an arbitrator, after a rate war between the railroads carrying lumber west to Missouri River points. The aim of the arbitrators' decision, as it was interpreted by the Commission, was to put the various lumber-producing centers on an equality in the common market. Eau Claire had certain natural advantages over its rivals, such as nearness to the source of timber supply, etc. Hence the rates charged from Eau Claire had been made much higher than the rates charged from Winona and La Crosse, with the idea that, having these natural advantages, Eau Claire could pay higher rates and still be on a par with its rivals. As a matter of fact, the rates charged were so discriminatory, that even its natural advantages were not sufficient to keep Eau Claire on an equality of business and population with its neighboring rivals. The Interstate Commerce Commission expressed vigorous disapproval of the principle of fixing rates "in inverse proportion to the natural advantages of competing towns with the view of equalizing 'commercial conditions.' . . . Each community," it was said, "is entitled to the benefits arising from its location and natural conditions, and the exaction of charges, unreasonable in themselves or relatively unjust, by which those benefits are neutralized or impaired, contravenes alike the provisions and the policy of the statute."

As a general proposition relating to the policy of a single railroad, such a decision would appear to be in conformity with the principles emphasized in this book.[1] Eau Claire was somewhat farther from the Missouri River market than Winona and La Crosse, and was on a

[1] See particularly Chapter IV, § 2.

branch of the railroad. A slightly higher rate from Eau Claire was justifiable. But a rate arbitrarily made much higher, for the purpose of putting Eau Claire on a par with rivals having less natural advantages, was uneconomical, tending to divert industry from a place where it could be most effectively applied, to places where its application would bring smaller results.

But, on the other hand, the decision of the arbitrator, in 1884, could not well have been based on any other principle *as between the rival railroads*. While it was not at all necessary to put *each producing center* upon an equality with each other such center, without regard to comparative natural advantages, a basis of permanent peace among the rival roads could hardly have been arrived at except by such a relation of rates as would enable *each railroad*, which was in a position to compete for it, to handle a share of the business. In other words, the producing centers on one railroad must be given such rates that they could compete on fairly even terms with producing centers on the other railroads; but the different places on any one railroad, it might not be necessary to put on an equality. If the more advantageously located points did greater business and other points on the same line less business, in consequence of non-discriminating rates, the railroad would be as fully utilized as otherwise, and economic waste would be, to an extent, avoided.

But unless it is desired to pick out some one road (or a selected few) to carry the goods in question — in this case lumber — to a given market, unless it is desired to prevent any rivalry of different railroads and different producing centers, we must, to an extent, allow the railroads serving different producing centers, each to

take some traffic. That each such road, if necessary, anyway, to the communities it serves, should carry some of this particular competitive traffic, rather than that the facilities of one or a few railroads should be increased so as to allow it to carry all such traffic, may be actually more economical in additional cost to the community, and even if not, at the time, more economical, may be advantageous in the end because of the stimulus to efficiency which rivalry involves.

It might, of course, happen that one of several lines leading to a common market was capable of carrying a greatly increased traffic, and that it could get this traffic only by discriminating rates in favor of a lumber-producing center on its lines the natural advantages of which were less good than those of rival points also on its own lines. At the same time, it might happen that the other railroads, serving various rival producing centers, were so fully utilized as to require additional construction if they were to carry more traffic. The question would then be, if more lumber could be sold in the common market, whether the fully utilized lines should increase their trackage, or whether the incompletely utilized line should discriminate so as to carry to the market not only lumber from the naturally advantaged producing centers along its line but also from producing centers less advantageously situated.[1] Since this line is presumably needed, anyway, it may be economically desirable that it should take this traffic even though discrimination is necessary to enable the line to do so, rather than that other lines should unnecessarily expand their plants. If, however, the effect of the discrimination is not to increase the business of this line by increasing the total

[1] Cf. Chapter II, § 4, and Chapter V, §§ 1 and 2.

amount of lumber marketed, but to cause lumber to be carried from the less favorably situated instead of from the more favorably situated points on that line, the discrimination is clearly uneconomical.

The Cincinnati Freight Bureau case [1] involved in a somewhat different way the problem of natural advantages of location. This case, to which reference has already been made in another connection,[2] was brought by Cincinnati and Chicago interests with the purpose of securing lower rates on manufactured goods from Central Traffic Association territory to points in the South. The chief difficulty appeared to be the high rates charged by the roads south of the Ohio River. Those roads were members of the Southern Railway and Steamship Association and were apparently charging these rates as part of an understanding with the eastern roads south of the Potomac, to protect the latter in their transportation of manufactured goods from eastern cities to the South. The rates from the Middle West to the South were therefore much higher than the rates from the East to the South, with the consequence that middle western manufacturers could not do business in the South on equal terms with their eastern competitors, though their sales in the West enabled them to maintain and increase their total business. Had competition been unrestricted, it is likely that the roads from the Middle West to the South would have made lower rates on manufactured goods, in order to have a larger share in supplying the southern market, in order to divert part of the manufactured goods from their movement

[1] Interstate Commerce Reports, Vol. VI, pp. 195–256. Decided May 29, 1894.

[2] See Chapter IX, § 3.

westward over other lines (competition of directions), and in order to build up to a greater extent manufacturing in the Middle West, from which a permanently larger traffic might have resulted to the railroads leading thence to the South (competition of locations). But instead, at the behest of the southeastern railways, there was a purposed scheme of discouraging the development of this potential business. The Interstate Commerce Commission expressed most vigorous disapproval of the policy followed, emphasizing the rule that rates should always be reasonable. "No departure from this rule," it was pointed out, "can be justified on the ground that it is necessary in order to maintain existing trade relations, or to 'protect the interests of competing markets,' or to 'equalize commercial conditions,' or to secure to carriers traffic from certain territory assumed to be exclusively theirs. It is not the duty of carriers, nor is it proper that they undertake by adjustment of rates or otherwise to impair or neutralize the natural commercial advantages resulting from location or other favorable condition of one territory in order to put another territory on an equal footing with it in a common market. Each locality competing with others in a common market is entitled to reasonable and just rates at the hands of the carriers serving it and to the benefit of all its natural advantages. . . . If this result in prejudice to one and advantage to another, it is not the *undue* prejudice or advantage forbidden by the statute, but flows naturally from conditions *beyond the legitimate sphere of legal or other regulation.*"

With the qualifications which have been previously stated, the principle here set forth by the Commission, and the application of it to the particular case under

discussion,[1] must commend themselves as just. But the qualifications are not entirely without importance, though, if properly applied, they must add appreciably to the complexity and difficulty of the regulating problem. Their application would serve to emphasize the necessity for dealing with each case by itself and, therefore, would serve to emphasize the impossibility of regulating transportation rates in any other way than by means of a commission empowered to consider all the circumstances of each particular case.

§ 3

Undue Preference to Traffic Moving Entirely or Largely over the Discriminating Railroad

In the case of the *Colorado Fuel and Iron Company* v. *The Southern Pacific Company et al.*,[2] decided in 1895, the complainants showed that rates on iron and steel articles from Pueblo, Col., to San Francisco were much higher than the corresponding rates from points much more distant from San Francisco, though the carrier's cost from Pueblo was much less; and it was contended that these high and discriminatory rates prohibited the movement of iron and steel goods from Pueblo to San Francisco. Some of the testimony seemed to show, according to the interpretation of the Interstate Commerce Commission, that the Southern Pacific Railroad was discriminating in favor of traffic originating at Chicago and going west via New Orleans, and against

[1] It should be remembered, however, that the order fixing maximum rates in this case was set aside by the Supreme Court, 167 U. S., 479, on the ground that under the law at that time the Commission might not establish future rates.

[2] Interstate Commerce Reports, Vol. VI, pp. 488–519. Decided November 25, 1895.

traffic originating at Pueblo, partly because on the former its share of the total haul was much greater. Discussing this policy, the Commission said: "The action of a carrier in diverting through traffic from a shorter route over which it participates in carriage, so as to secure for itself greater aggregate revenue through a long haul by a different route over which it is also engaged in transportation, sometimes results in discriminations and prejudices, both as to rates and facilities; and inequality in treatment of shippers and localities, having no other justification than this end, is indefensible." Independently, also, of this alleged motive and purpose for discriminating, the Commission found that the rates from Pueblo were unreasonable in themselves and that they subjected Pueblo to undue disadvantage in comparison with other points of shipment over the defendant railroad to San Francisco.

In the Pueblo case the discrimination complained of was primarily against a *producing* center. The Savannah Naval Stores case [1] is an instance of discrimination against a *market*, Savannah, Ga., and in favor of a rival market, Pensacola, Fla. On cotton and naval stores shipped eastward to Savannah from stations on the Pensacola and Atlantic division of the Louisville and Nashville Railroad, the rates charged by that road were very much higher than the rates charged for corresponding distances westward to Pensacola. The purpose was to force shipments westward in order to develop Pensacola and in order to give the Louisville and Nashville a long haul via Pensacola to Louisville or Cincinnati. The Commission required a reduction in the rates charged on ship-

[1] Interstate Commerce Reports, Vol. VIII, pp. 377–408. Decided January 8, 1900.

ments eastward, thus decreasing the extent of the discrimination, but it allowed the Louisville and Nashville to charge for its share of the total rate to Savannah, rates equal to its full local rates for corresponding distances to Pensacola, notwithstanding the fact that traffic to Savannah was *through* traffic in conjunction with connecting lines, and notwithstanding the fact that the Commission has, in other decisions, held that a through rate which is the sum of local rates, is *prima facie* unreasonable. Unless the Commission feared that the courts, under the law as to court review, etc., as it then existed, would not uphold any stricter decision, there would seem to have been no adequate justification for a ruling so lax. Certainly there was no sufficient economic justification for it. The normal development and the most profitable development of national industry requires that producers shall have reasonable access to all markets and not to a few or one market only.

In 1909, after the Hepburn Law of 1906 had limited the extent of court review and had given the Interstate Commerce Commission, in definite terms, the power to establish through routes and joint rates, the Commission rendered a decision [1] more completely in accord with correct economic principles. The Chamber of Commerce of the city of Milwaukee complained that shortly after the Burlington, Cedar Rapids and Northern Railway Company came to be controlled by the Chicago, Rock Island and Pacific Railway Company, in 1902, all joint grain rates to Milwaukee from the local non-competitive points on the line of the Burlington, Cedar Rapids and Northern were withdrawn except on wheat and barley. Such joint rates had previously been made in connection

[1] *Ibid.*, Vol. XV, pp. 460–467. Decided March 2, 1909.

with the Chicago, Milwaukee and St. Paul, and the Chicago and Northwestern, to both Milwaukee and Chicago as well as to other primary grain markets. The purpose of the complainants was to secure the reopening of the through routes to Milwaukee from local points on the Burlington, Cedar Rapids and Northern, and the reëstablishment of joint through rates on corn, rye, and oats to Milwaukee on the basis of the existing rates on those grains to Chicago. The Rock Island road not only refused to join in through rates on corn, rye, and oats to Milwaukee, but expressed its purpose to withdraw the joint rates to which it was a party on wheat and barley. The claim of the Rock Island, in defense, was that the absorption by it of the Cedar Rapids road gave the enlarged system the right to enjoy the long haul to Chicago, over its own route, and gave it the right, in protection of its revenues, to so adjust its rates as to force the grain to Chicago and divert it from Milwaukee, regardless of the fact that many shippers of grain might prefer the latter market. The very purpose of the acquisition of the Cedar Rapids road was said to be to use it as a feeder. To compel the Rock Island, therefore, to turn traffic originating on the Cedar Rapids road over to a rival was not, in the view of the defense, a fair and proper exercise of authority.

"In general," said the Commission, in giving its decision, "the carriers may demand of the shipping public nothing beyond a reasonable compensation for the services rendered. It cannot force its services upon a shipper or insist upon carrying his shipment to one market when he desires to reach another market. It has no right to insist that a shipment shall go to the end of its rails if the shipper desires it to be diverted at an

intermediate point to another market off its rails, nor may the carrier accomplish these results indirectly by any unreasonable adjustment of its rate schedules with that end in view. It cannot lawfully compel the shipping public to contribute to its revenues on any such grounds."

The interests of the railways, broadly considered, are no offset to the general economic evils of such discrimination as we are now considering. For any railroad which follows the policy of refusing to prorate with rival roads, in order to keep as much freight as possible on its own lines, injures such other roads fully as much as it benefits itself, and if such a policy is allowed to become general, the average railroad will be no less often discriminated against than discriminating. From the point of view of shippers and consumers, however, it may be desirable that some rivalry of alternative routes and directions of shipment should be preserved. To this end a railroad should perhaps be allowed to bid for long hauls over its own rails by offering exceptionally low rates, leaving other railroads, with which its rails connect for the transportation to other markets, free to bid against such low rates by accepting a low share of a joint through rate. But the railroad which thus bids for a long haul over its own rails should be required in all cases to accept a reasonable compensation as its share of a joint through rate from shippers who prefer to have their shipments sent to other markets over connecting lines. And in every case the rates charged by it for the longer haul over its own rails should be enough higher than its share of the rate for the shorter haul, to pay something, however little, above the additional cost incident to hauling the freight a longer distance.

§ 4

The Long and Short Haul Clause, and Comparative Size of Cities

In several cases, the railroads have sought to justify lower rates to a longer distance point than to a shorter, over the same line in the same direction, by emphasizing the greater population and business of the longer distance point. This was part of the defense in the Alabama Midland case.[1] The Alabama Midland Railway had been making lower rates to and from Montgomery than Troy, Ala., on traffic which passed through Troy in going to or from Montgomery. It was explained by the defense that Montgomery was a larger city than Troy and a trade center. The practice of giving large towns and trade centers discriminating rates was declared by the Commission, however, to be antagonistic to the whole spirit and purpose of the Interstate Commerce Law. Though the Commission's decision in this case was overruled by the courts [2] acting under their interpretation of the unamended law, yet, since the law has since been amended in the direction of enlarging the Commission's jurisdiction and power, the ruling in question is of continuing significance.

In another case,[3] involving comparative rates from the East to San Bernardino and Los Angeles, Cal., the Commission, while justifying lower rates to Los Angeles because of water competition at Port Los Angeles, a Pacific Coast point near Los Angeles, refused to countenance an argument for discrimination based on the

[1] Interstate Commerce Reports, Vol. VI, pp. 1–35. Decided August 15, 1893.
[2] See 168 U. S., 144.
[3] Interstate Commerce Reports, Vol. IX, pp. 42–60. Decided April 13, 1901.

relative sizes of the cities concerned. The fact that Los Angeles was a larger town than San Bernardino, having more business, for which competition was fiercer, was asserted not to justify discrimination between them. The railroads serving these two cities should not agree to compete at one and not compete at the other. They must not favor one more than another simply because it was stronger to begin with.

This ruling would appear to be entirely in accord with correct economic principles. To permit discrimination in favor of one place as against another tends to increase the business and population of the former and to decrease that of the latter. If the difference in amount of business and in size is thus made an excuse for discrimination, we have a vicious circle of cause and effect. Once a town has outdistanced its rivals, the larger shipments of goods to and from it may possibly make the cost of carrying these goods somewhat lower per ton mile. But this fact can be taken notice of in the relative ton-mile rates on large *versus* small quantities of goods, *e.g.* on carload *versus* less-than-carload lots. It does not ordinarily, if ever, justify discrimination in favor of the one *place, as such,* as against other places.

§ 5

The Long and Short Haul Clause, and Discrimination by the Longer or Longest Line

In very many cases the Interstate Commerce Commission has permitted the longer of two or more competing lines between two points to make lower rates on their competitive traffic than on intermediate traffic. That it has from the beginning been the policy of the

Commission to make exceptions from the long and short haul rule in many cases, for roundabout lines, was pointed out in a previous chapter.[1] In the St. Cloud case,[2] however, the Commission refused to allow this departure from the rule by the long line, the Northern Pacific Company, contending that such departure would tend to increase the discrimination against St. Cloud, the intermediate point, that the shorter competing lines were conforming to the requirement and would be completely at the mercy of the longer line if it alone were unrestricted, and that the general enforcement of the long and short haul rule would, in other cases, be to the advantage of the defendant railroad. To the claim that the Northern Pacific was not increasing the discrimination because it merely met the rates on the competitive traffic, made by the other railroads, the Commission replied that it is impossible to determine, in the majority of instances, "which one of several competitors is responsible for a given reduction or a given advance in rates." The Northern Pacific Railroad was therefore forbidden to charge more for the short than for the long haul.

In the Danville, Va., case,[3] the Commission expressed a similar view with regard to the possibility of concluding that one line simply met the rates made by its competitors. The Southern Railway carried traffic to and from Lynchburg, Va., and also to and from Danville, an intermediate point. The rates to Danville were much higher than to Lynchburg. At Lynchburg, the Southern Railway had to compete with the Chesapeake and Ohio

[1] Chapter VIII, § 3.

[2] Interstate Commerce Reports, Vol. VIII, pp. 346–363. Decided November 29, 1899.

[3] *Ibid.*, Vol. VIII, pp. 409–442 and 571–584. Decided November 17, 1900.

and the Norfolk and Western railroads. At Danville, the Southern had no competition. The Southern Railway was the long line to Lynchburg and its claim was that it simply met, at Richmond, Lynchburg, and Norfolk, the rates made by the other railroads. The Commission, however, refused to accept the theory that the Southern Railway merely *met* its competitors' rates, or that it exercised no influence over the competitive situation. At the moment when the Southern first put in force the rates of the other railroads, its doing so may not have increased the discrimination against Danville, but considered as a continuing fact, its participation in the competitive business as a rival of the other companies, could not be assumed to have been altogether without effect. In view of all the circumstances involved, the Commission did not require that the Danville rates should be made as low as the Lynchburg rates, but it did order that there should be a fixed relation between them, the Danville rates exceeding those to and from Lynchburg by from 10 to 15 per cent. This order, had the Commission's authority been clear under the unamended law, would have made the intermediate rates to and from Danville depend upon the Southern's longer distance rates and so would have made any irresponsible competition by this line impossible, while yet recognizing, in some degree, the dissimilarity of circumstances and conditions to which the longer line was subjected.

Since the strengthening of the long and short haul clause, in 1910, and of the Commission's authority with regard to exceptional cases arising under it, the Commission seems to have adopted a more lenient, and, it is believed, a too lenient attitude. The policy has been followed, to a large extent, of allowing roundabout lines

to charge less for the long competitive haul than for the short non-competitive haul. But in no case, apparently, except where the competition has been with water carriers,[1] has the Commission required the long line to maintain any particular relation between its long-distance and its short-distance rates. In its Twenty-fifth Annual Report,[2] the Commission sets forth the conditions under which it has allowed departure from the rule by a long line. These are that:

"The long line has been manifestly circuitous.

"The short line has observed the fourth section at intermediate points.

"The intermediate rates upon the long line are apparently reasonable and just and are not under attack.

"When these conditions have been met," continues the Commission, "we have permitted the long-line to meet the short-line rate. In so doing *we have not undertaken to fix a relation between the long-distance rate and the intermediate rate*,[3] but have usually provided that the intermediate rate shall not be advanced above the present rate. These orders permit the circuitous route to meet not only the present rate made by the short line, but any future rate which that line may name. In case of reduction by the short line the long line might therefore correspondingly reduce its rate at the competitive point *without any reduction of its intermediate rates*,[3] but it could not in any case, as long as it charges less at the more distant point, advance its intermediate rates above those in effect at the time of the making of the order."

This policy, it will be seen, in many cases allows the short line to reduce the long-distance rate only by sub-

[1] See § 8 of this Chapter (X). [2] Page 26.

[3] The italics are the present writer's.

mitting to a reduction of intermediate rates, while the long line is enabled to reduce its long-distance rates without suffering any other loss in revenues. This is hardly an ideal arrangement, though it may be much better than no regulation at all. It is unnecessary to repeat the argument, so often set forth in these pages,[1] that transportation by a roundabout line may sometimes be socially the most economical, and that to permit such transportation it may frequently be necessary to let such a roundabout line make lower rates on the long-distance than on intermediate traffic. But it has also been pointed out that to let the long line depart without limit from the long and short haul rule, while not allowing any departure at all by more direct lines, gives the long line an advantage over its rivals even if transportation by it, because of its greater length or for other reasons, is appreciably less economical than by a direct route.

Furthermore, in permitting the long-line to "meet" the short-line rate, the Commission seems not to have ruled consistently with its earlier opinion, expressed in the St. Cloud and Danville cases, that it is usually impossible to determine which line merely "meets" the rates of its competitors, and that, in the long run, each additional competitor for the long-distance business must be assumed to exercise some influence over the long-distance rates.

§ 6

The Long and Short Haul Clause and "Market" Competition

The term "market competition" seems to be used to designate those competitive relations which have been

[1] Chapter II, § 2, Chapter V, § 1, and this Chapter (X), § 2.

described in a previous chapter [1] of this book, as competition of directions and competition of locations. We have seen that in the case of such competition, as in the case of competition of routes, there may be economic justification for discrimination against intermediate traffic by a longer line.[2]

In the case of competition of directions or of locations, the long line would not necessarily be roundabout, but would be one connecting a source of supply with a relatively distant market or a market with a relatively distant source of supply. To illustrate, we may take a case presented to the Commission, and summarized in its Twenty-fifth Annual Report.[3] This case involved lumber rates from Georgia, Florida, and the Southeast to Cairo, Ill. Pine lumber of substantially the same quality is produced along the southern part of the United States all the way from the Atlantic Ocean to middle Texas. From these various districts, railroad lines converge at Cairo. The lines leading from the Southeast were maintaining a lower rate to Cairo than to intermediate points, and justified themselves for so doing, on the ground that Cairo could be supplied with lumber from the Southwest, South, and Southeast, that the mills to the South and, to some extent, to the Southwest, were nearer to Cairo than those of the Southeast. The railroads leading to Cairo from the Southeast wished, therefore, to charge rates low enough on lumber traffic to Cairo to put their more distant producing centers on a par with producing centers at points nearer the common market, without thereby having to reduce their immediate rates.

Obviously, cases of this sort are very similar, in

[1] Chapter II, §§ 3 and 4. [2] See Chapter II, § 4, and Chapter V, § 2.
[3] Page 26.

principle, to cases involving the competition of a roundabout line. While it will frequently, perhaps generally, be more economical that goods should be carried to a market from the nearest source of supply, if production costs at that source of supply are as low as elsewhere, yet, as we have seen, considerations regarding utilization of railroad plant, etc., may sometimes make it more economical to bring goods to a common market from a relatively distant producing center. But this possibility the Commission seems never to have realized, at least to the extent of allowing the longer line to discriminate. Probably it would not be fair to say that the Commission has given no consideration to such conditions as justifying departure from the rule of the fourth section, but such market competition seems not to have been recognized by the Commission as being, of itself, a sufficient reason for departing from the rule.[1]

§ 7

The Long and Short Haul Clause in its Proper Application to a Direct Line with Light Traffic Competing with a More Roundabout Line Having Dense Traffic

The Interstate Commerce Commission has stated, in its twenty-fifth and twenty-seventh annual reports,[2] the conditions under which it has been willing to grant relief from the strict rule of the fourth section. No mention is made, however, of one type of case which might easily arise and in which relief ought to be granted. This is the case of a direct line having light traffic and, there-

[1] Twenty-fifth Annual Report of the Interstate Commerce Commission, p. 27; Twenty-seventh Annual Report, pp. 27–28.

[2] Pages 19–41 and 23–28 respectively.

fore, high average expenses per ton mile, and having to meet, in long-distance traffic, the competition of a slightly longer line which, nevertheless, having denser traffic and lower average expenses per ton mile, is able to make appreciably lower ton-mile rates. The economic justification for lower long-haul rates by the more direct line was elaborated in an earlier chapter,[1] and need not be repeated here. Such a case may not yet have been presented to the Commission since the larger powers have been conferred upon it. But if such a case should be presented, there is, perhaps, even more reason for allowing departure from the rule than in the more usual case of the roundabout line.

Possibly the second Chattanooga case,[2] decided in 1904, is a case of this sort, though the decision of the Commission was probably not so much an expression of the opinion of that body as to what ought economically to be done, as it was a necessary consequence of the Supreme Court's decisions limiting its authority. Traffic from the East to Nashville, Tenn., might follow a southern route via Chattanooga, or it might follow a more northern route, somewhat longer, through Trunk Line Territory, Central Traffic Association Territory, Cincinnati, and Louisville. The rates to Chattanooga were higher than to Nashville. The line leading to Nashville via Chattanooga was departing from the rule of the fourth section. But Nashville was nearer to Central Traffic Association Territory, where traffic was more dense and average rates lower. Hence it had low rates from the East based on rates to Cincinnati and Louisville. The line through Chattanooga had to make

[1] Chapter V, § 3.

[2] Interstate Commerce Reports, Vol. X, pp. 111–147. Decided March 12, 1904.

equally low rates to Nashville if it was to take any of the traffic, and as it was a shorter line than any other, it may well have been economically desirable that it should have a considerable share of this business. But it perhaps did not follow, in view of the lighter traffic in the South, that all its intermediate rates should be reduced in the same degree. The Commission dismissed the complaint.

§ 8

The Long and Short Haul Clause and Water Competition

Water competition, when of controlling influence, the Interstate Commerce Commission has from the first recognized as a reason for granting relief from the operation of the fourth section. One of the early cases of this nature was the Readville case [1] involving rates from New York City to Readville, an intermediate point near Boston, as compared with rates from New York to Boston. The rates to Readville were higher than to Boston. It was proved that between New York and Boston there was substantial water competition, which did not exist at Readville, and which forced down the Boston rate. For this, among other reasons, the Commission found that the circumstances controlling the longer distance traffic were substantially dissimilar and justified the difference in rates.

A more recent case, and one which has aroused considerable interest, is that which resulted in the Commission's order, in the Spokane case of 1911, establishing a zone system of transcontinental rates.[2] The reader is

[1] *Ibid.*, Vol. IV, pp. 251–264. Decided October 30, 1890.

[2] See *Ibid.*, Vol. XXI, pp. 400–427, and Twenty-fifth Annual Report of the Interstate Commerce Commission, pp. 27–41. Decided June 22, 1911.

doubtless already familiar with the long-established general system of transcontinental rates,[1] *i.e.* the system of making the same rates to Pacific Coast and near-coast points from all points east of the Missouri River, and even, in some cases, from points farther west, and of making the rates to intermountain territory by adding to the coast rates, the locals back.

The Commission ruled, as we have previously seen,[1] that from points west of the Missouri River, rates to intermountain points should not at all exceed those to the coast, that from Chicago and points west of Chicago the discrimination might not exceed 7 per cent., that from Buffalo and Pittsburg territory, rates to intermountain points might not be discriminatory by more than 15 per cent., while the discrimination against intermountain territory and in favor of Pacific Coast cities on traffic from Atlantic Seaboard territory so-called, might be 25 per cent.

The larger per cent. discrimination against intermountain territory, allowed on traffic from cities on and near the Atlantic Coast, was explained as a recognition of water competition. Goods from Boston, New York, and other coast points could easily and cheaply go to the Pacific Coast by water. Hence the railroads must make low rates if they would get a share of the business. But they could not be expected to make equally low rates on their intermediate traffic. They should, therefore, if the competitive rates yielded some return above operating cost, be allowed to engage in competitive business, even though their intermediate rates could not be made correspondingly low. It was pointed out in a previous chapter[1] that a railroad, the plant of which is necessary

[1] See Chapter V, § 4.

because of the requirements of intermediate traffic, may sometimes further subserve the economic interests of the community by taking traffic for which, otherwise, additional capital would have to be invested in water transportation facilities.

From points farther west, *e.g.* Chicago, the Commission did not believe that water competition was of nearly so much importance. Goods were, to a slight extent, shipped eastward from this territory to the Atlantic Coast and thence by water to Pacific Coast points. It might be contended, therefore, that water competition had some influence on rates to the Pacific Coast, even from points as far west as Chicago. But this influence was believed to be slight. Hence, the Commission concluded that there was no adequate excuse for so wide a discrimination against intermountain territory, on traffic originating, say, at Chicago, as on traffic originating at New York or Baltimore.

As a matter of fact, it was not primarily direct water competition that fixed rates from such points as Chicago and St. Louis to the Pacific Coast on the same basis as rates from the Atlantic seaboard. Rather was it, as the Interstate Commerce Commission recognized, primarily so-called market competition (competition of directions or of locations or both). The transportation lines leading from middle western centers to the Pacific Coast might conceivably have charged higher rates than were charged for transportation clear across the continent, since water competition was not met in the former case to anything like the same degree. But these lines from the Middle West desired to keep Chicago, St. Louis, and other cities on a par with more eastern cities in the Pacific Coast markets, and so insisted upon maintaining rates to the

Far West just as low as were enjoyed by eastern coast cities. The railroads leading from the Middle West to the Far West could thus build up the middle western producing and trade centers and would receive the entire rate from shipments westward over their own lines, whereas they could get only a share of the rate on coast to coast traffic delivered to them by their eastern connections. If, therefore, these western railroads could afford to meet the water-compelled transcontinental rates, their prosperity might, in the long run, be increased by their doing so. Nor can we conclude that the general economic welfare of the nation would necessarily be affected adversely. If it is desirable that some transcontinental traffic should be carried, by rail, at low rates, rather than by water, may it not be equally justifiable economically for these goods to be carried by rail from a near source of supply rather than a far source?[1] We may, if we choose, think of the competition as being, in part, a competition of markets between water transportation lines on the one hand and the rail lines from the Middle West on the other. In this view, the rail lines from (say) Chicago to San Francisco or Portland, are endeavoring to develop Chicago as a center of production from which to supply the Pacific Coast, in competition with water carriers which are endeavoring to supply Pacific Coast cities from Boston, New York, Baltimore, etc. The same argument can be applied to show that such rail competition may be entirely legitimate, economically considered, as could be applied were the competition with a water carrier a competition of routes. The rail lines from the Middle West must exist anyhow for the sake of traffic in goods for the production of which

[1] Cf. argument of the defendants in this case.

this region has superior advantages. May it not be as economical to utilize more completely these transportation lines, making other industries also center in the Middle West, as to construct and maintain more ocean-going ships with which to supply the Far West from the Atlantic Coast?

The Interstate Commerce Commission gave weight to contentions of this sort, although inclining to the belief that the interests of the railroads would be subserved by giving interior far western points, like Spokane, rates which would build up those points, as against Pacific Coast points, just as Chicago and St. Louis were being protected as against Atlantic Coast cities.

The order of the Commission, in this case, reducing the permitted discrimination against Spokane and other intermountain cities, according as traffic originated farther and farther west, would seem to have had adequate economic justification. For on traffic from (say) the Middle West, the same rate as from New York is collected for a shorter haul. The rate per mile, the rate as measured by services rendered, is appreciably higher. Hence, it does not require so great an addition to the terminal rate from the Middle West to make the intermediate rate *unreasonable in itself*. Or, to put the matter in a different light, the distance from the Middle West to intermountain territory is less than from the Atlantic Coast, and, therefore, a lower rate is reasonable for the service rendered, even though a lower rate than from Atlantic Coast cities is not accepted on traffic to the Pacific Coast.

§ 9

Import and Export Rates

In the Import Rate case,[1] the Interstate Commerce Commission took the ground that, since it had no jurisdiction over conditions in European countries whence goods were shipped to the United States, no consideration could be given to these conditions as bearing upon the question whether import traffic was carried, by American railroads, under different conditions than purely domestic traffic. The Supreme Court, however, overruled the Commission on this point,[2] asserting that the Commission must consider all the conditions to which the traffic in question might be subject, whether at home or abroad, in order to determine whether discrimination in favor of import traffic was undue. But with the present increased authority of the Commission over absolute rates, undue discrimination, etc., there seems no reason to assume that that body would look with favor on any discrimination in favor of import traffic, unless the reason for it would justify discrimination, under corresponding circumstances, in favor of purely domestic traffic between given points.

In the Boston Chamber of Commerce case,[3] the Commission recognized, at least by implication, that rates by a longer line might be lower to the port of shipment, for export, than for domestic consumption. The Commission called attention to the fact that the railroads made rates to Boston, for export, as low as to New York, in order to

[1] Interstate Commerce Commission Reports, Vol. IV, pp. 447–534. Decided January 29, 1891.

[2] See 162 U. S., 197.

[3] Interstate Commerce Commission Reports, Vol. I, pp. 436–464. Decided February 15, 1888.

put Boston, so far as possible, on a par with New York; while at the same time it was recognized that the domestic rate to Boston, because the distance was greater, might be higher than to New York.

In the Export Rate case,[1] the Commission very definitely put itself on record in favor of the principle that the railroads constituting parts of the longer and more roundabout routes to Europe, in particular the railroads to Boston, Portland, Me., and the Gulf ports, should be allowed to charge less as their share of the export rate on grain to Europe than they charged to the same ports for domestic use. This was on the assumption that there was no discrimination by the most direct line or lines, and is consistent with the theory that the longer lines should be allowed, within reasonable limits, to meet the competition at competitive points, of the shorter.

In the Export Rate case, the Commission discussed at length the problem whether discrimination in favor of export grain is ever of general economic advantage. Their conclusion was that such economic advantage could seldom result from discriminating rates on export corn but might occasionally result from low export rates on wheat. Europe's corn market, it was said, was dominated by the corn of the United States, and lower transportation rates, encouraging our export of corn, would so oversupply the European market as greatly to depress prices, at the expense of American railroads and with no great gain to American producers. But in the case of wheat, the American supply was a less proportion of the total, so that the Liverpool price of wheat might be said, with some show of reason, to dominate the Chicago price. Hence, reduced rates for the transporta-

[1] *Ibid.*, Vol. VIII, pp. 214–276. Decided August 7, 1899.

tion of wheat might raise the price to American producers instead of lowering, in any great degree, the price to foreign consumers. In a previous chapter,[1] the attempt was made to show that discrimination in favor of exports is a species of bounty *except* when the larger traffic so stimulated pays as well as or better than a smaller traffic at higher rates. In other words, the discrimination is not economically good if the railroads lose by it. For though it may seem as if wheat producers (for example) gain more than the railroads lose, yet since this gain is at the expense of higher rates necessarily required of other shippers, it will discourage other business, and will encourage wheat production and export up to the point where it is no longer more profitable — at the margin — than other kinds of business. In other words, other kinds of business are taxed, yet those in the favored line, at the margin of production, derive no gain. Industry is turned unduly and uneconomically out of its natural channels.

The Commission discussed, also, in this case, the advantage of lower export rates in years of plentiful harvests, as a means of maintaining a stable price of wheat to the producers.

§ 10

Summary

Some of the most difficult problems with which the Interstate Commerce Commission has had to deal have involved discrimination between places. Such discrimination is forbidden in general terms in section 3 of the Interstate Commerce Law, as undue preference; and a

[1] Chapter V, § 6.

particular form of it is forbidden in section 4. In determining what is undue preference, the Commission has given attention to the element of distance, but has carefully pointed out that rates for a long distance may properly be, as a rule, lower *per mile* than for a short distance. Greater likelihood of water competition, constancy of terminal expenses, and other facts are held to justify such a practice. In general, every place is entitled to its natural advantages of location. Agreements among railroads to deprive any locality of such natural advantages have been held to be contrary to the Interstate Commerce Act. Yet the Commission has upon occasion upheld a limited application of blanket rates which required nearer points to pay as much as farther distance points to reach a given market. Under some circumstances and within reasonable limits, permission to do this does not operate unfavorably to the general welfare. For the most part, the Commission has been opposed to, and, it is believed, justly opposed to, attempts of railroads to get and keep traffic on their own lines by discriminating in their rates against traffic which they receive from or deliver to connecting railroads. Industry may be thus turned out of its most profitable channels, and the railroads themselves, taken as a whole, are not gainers.

Larger size of city is not regarded by the Commission as a sufficient reason for a lower rate over the same line in the same direction to the longer distance point than to a nearer and smaller place. Nor is competition between railroads regarded as a sufficient reason — with the Commission's present authority — except, under special circumstances, in the case of roundabout lines. The Commission frequently allows roundabout lines to meet

rates made by their more direct competitors, without compelling the former class of roads to lower their intermediate rates, provided the intermediate rates are reasonable. This policy of the Commission seems inconsistent with previous opinions of that body to the effect that it is impossible to tell what line makes and what line merely meets a rate. Our conclusion was that a fixed relation between the rates on the longer distance and on intermediate traffic, which would give some, but not too much, leeway to the longer line, according to the circumstances in each case, might be a preferable policy. There appeared, also, to be some doubt whether the Commission was right in its policy of not allowing departures from the rule of the fourth section, to the lines carrying competitive traffic the longer distances, in the case of competition of "markets." Nor has the Commission yet seemed to recognize — though perhaps no proper case has yet come before it — the economic validity of permitting shorter lines to depart from the rule in cases where they compete with longer lines having heavier traffic and lower average rates. Water competition the Commission has rightly recognized as justifying, in many cases, departure from the long and short haul rule, *e.g.* in the transcontinental zone-rate decision.

As to import rates, there seemed no reason to assume that the Commission would rule differently than in the case of domestic rates. The possibility of a different ruling with regard to export rates was recognized but the conditions which would lead to such a ruling would seldom arise in practice. A part of the Commission's reasoning in the Export Rate case was subjected to critical analysis in the light of the conclusions of an earlier chapter of this book.

CHAPTER XI

Rulings of the Interstate Commerce Commission: Discrimination among Different Goods and among Shippers

§ 1

Relative Rates on Competing Goods

The Interstate Commerce Commission early recognized the principle, defended in Chapter VI of this book, that the rates [1] on goods which are substitutes for each other ought to be in such relation as not to give to either an undue advantage in common markets over its rival commodity. One of the earliest cases of this sort originated in a complaint by the manufacturers of Pearline, that the rates charged for its transportation to various points in the South were much higher than the rates charged for the transportation of laundry soap, a competitive article.[2] The Commission ordered a considerable decrease in the discrimination, but allowed the rates on Pearline to remain somewhat higher than the rates on laundry soap, largely [3] because of the greater value of Pearline and the greater risk of damage to it in transit.

If Pearline and laundry soap were perfect substitutes

[1] § 1.

[2] Interstate Commerce Commission Reports, Vol. I, pp. 465–479. Decided February 15, 1888.

[3] See, however, § 3 of this Chapter.

for all uses, so that discrimination in rates in favor of either could have no other effect than to shift public demand from one to the other, a difference in the value of the goods would not justify a difference in rates. Under such circumstances, railroads could hope to gain nothing by reducing or raising rates on the one commodity, which they could not equally well gain by treating both commodities alike. And the discrimination might tend to influence disadvantageously the lines of industry followed. But the mere fact that the two commodities are of different values indicates that they are probably not perfect substitutes, and this indication is borne out, in the case of Pearline and laundry soap, by practical experience. Each article is used for some purposes for which the other could not well be used and each is used for some purposes for which the other would be less satisfactory. It follows that the effect of higher or of lower rates may not be the same on one as on the other, that one may be able to bear higher rates than the other without a corresponding decrease in demand, and that considerations connected with the covering of fixed and general expenses, and with the matter of utilization of railroad plant, may justify some degree of discrimination. How much discrimination is justifiable in any such case must depend on the degree in which the articles are substitutes and the extent to which they are used for different purposes or are sold to different classes of purchasers.[1]

[1] It should be pointed out, perhaps, that in the case of trade-marked articles, one is scarcely ever, in the minds of purchasers, a perfect substitute for another. If, in fact, the one article sells for a higher price, and is perhaps sold to a different class of purchasers than the other, a slight difference in transportation rates may be defensible even though either article *could* serve every purpose for which the other is used.

Another case [1] involving relative rates on substitutes had to do with the charges for carrying cowpeas as compared with the charges for carrying fertilizer. It was urged by the complainants that cowpeas were used as a fertilizer and therefore ought to be classified with fertilizers and carried for like rates. The Commission pointed out, however, that cowpeas were used not only for fertilizer but also, to some extent, as food. It followed that fertilizer and cowpeas were by no means complete substitutes, and this fact alone considerably weakened the argument of the complainants.

Another fact stated by the Commission tended to justify higher rates for the transportation of cowpeas even if they had been shown to have no other use than as fertilizer. This was the fact that transportation of cowpeas for use as fertilizer meant for the railroads a smaller volume of traffic than if they carried ordinary fertilizers. The reason was that cowpeas are used as fertilizer by being sowed and, after they have grown, plowed under the ground. Therefore, a comparatively small bulk of seeds can be used to fertilize a considerable area. In taking account of this fact, the Commission was deciding consistently with correct economic principle. For unless the plants of the railroads concerned were already fully utilized, the roads could well afford to charge somewhat lower rates per ton mile and receive the larger traffic in fertilizers than to charge somewhat higher rates on a smaller tonnage of cowpeas. The greater traffic, if fertilizers were carried, would not involve proportionately greater

[1] *A. G. Swaffield* v. *The Atlantic Coast Line Railroad Company and The Louisville & Nashville Railroad Company*, Interstate Commerce Reports, Vol. X, pp. 281–288. Decided June 24, 1904.

cost and it would therefore be economically justifiable that the use of fertilizers should not be discouraged by a proportionately higher rate.

§ 2

Relative Rates on Raw Material and Finished Product

In an early case [1] involving rates on cattle and hogs as compared with rates on their dressed products, the Commission expressed the opinion that the rates on these goods should be proportioned to each other according to the respective costs of service.

In the Export Rate case,[2] part of the complaint had to do with the relation of rates, for export, on wheat and on flour. The rates on wheat were appreciably lower, except from Minneapolis, than the rates on flour. As a consequence, American millers at Chicago and St. Louis were disadvantaged in competition with foreign millers. It was cheaper to have the wheat shipped at low rates, and milled into flour abroad, than to have it milled into flour and then exported at the higher rates for flour. Unless there was difference in cost to the railroads, no adequate economic justification could be given for this discrimination. Such discrimination tends to discourage domestic milling even if more efficient than milling abroad. The Commission expressed the opinion that both public policy and good railway policy required, in general, like rates on wheat and flour, but they allowed the railroads to make a slight difference in the rates. It was claimed by the railways that they

[1] Interstate Commerce Commission Reports, Vol. IV, pp. 611–629. Decided April 21, 1891.

[2] *Ibid.*, Vol. VIII, pp. 214–276. Decided August 7, 1899.

delivered flour *over* the ship's side and wheat only *at* the ship's side, and that this, among other things, entitled them to make some difference in the rates.

In a number of cases, however, the Commission has made decisions inconsistent with the general principles of equality of rates on wheat and flour expressed in this case. From Kansas and Missouri the rates on wheat into Texas have long been 5 cents lower per 100 pounds than the rates on flour. This tended to encourage milling in Texas for Texas consumption, and correspondingly discouraged milling in Kansas and Missouri for the Texas market. On complaint, however, from the milling interests of Missouri, supported by millers of Kansas, the Commission refused to order a change, contending that undue discrimination had not been shown.[1] In this case the Commission seems to have been guided in its decision by a desire to protect the vested interests of the Texas millers as against their rivals in Kansas and Missouri, rather than by general economic principles of wide application. The same complaint has been made on later occasions with the same result.[2]

In one of the later cases,[3] brought by the Board of Railroad Commissioners of the state of Kansas, it was also complained that rates on corn meal from points in Kansas were 7 cents per 100 pounds higher than rates on corn, with the result that shipment of corn meal into Texas from Kansas was commercially impossible. The Commission ruled that the difference in cost of service need not exceed 3 cents per 100 pounds and that a greater

[1] *Ibid.*, Vol. IV, pp. 417–442. Decided November 30, 1890.
[2] *Ibid.*, Vol. VIII, pp. 304–315, and Vol. X, pp. 35–46.
[3] *Ibid.*, Vol. VIII, pp. 304–315. Decided November 1, 1899.

difference in the rate, than was required to meet this greater cost, was unreasonable. In this case, the Commission's decision, upholding a somewhat higher rate on wheat than on flour, was based partly on the fact that the carriers in question accepted a smaller minimum carload in the case of flour, thus making the per-ton cost of transportation somewhat higher than in the case of wheat. In the territory concerned, this smaller minimum carload was a convenience to dealers. There seems to have been, therefore, in this case, a good economic argument to support the decision.

Greater tonnage per carload may be a reason for making somewhat lower rates on raw material than on finished product. In one case,[1] it appeared that a furniture company located at Lansing, Mich., did its machine and bench work at this point and shipped the unfinished furniture to a station near Oakland, Cal., for completion. Complaint was made that the transportation charge on unfinished and on finished cheap bedroom sets was the same and that this discriminated against the complainant and in favor of companies shipping the completed furniture direct to market. It was shown that the railroads got a greater tonnage per carload if they hauled the unfinished cheap bedroom sets, making the cost of hauling somewhat less per ton; and this was one reason why the Commission required the rate to be lower than on the finished goods. The Commission mentioned, also, the greater value of the finished articles, but greater value alone would hardly justify, from an economic point of view, discrimination against finished goods as compared with raw material.

[1] Interstate Commerce Commission Reports, Vol. V, pp. 514–528. Decided December 9, 1892.

The relation between raw material and finished product may be very close or it may be remote. In the case of wheat and flour, it is fairly close. In the case of grain and meat, it is comparatively remote. To an extent, grain is the raw material of meat, since grain products are used as food in fattening cattle, hogs, etc. But live stock are not fed entirely with grain nor is all grain used to feed live stock; neither are they, except in a limited degree, competitive commodities. A lower rate on grain than on live stock, in relation to cost, would doubtless in a slight degree encourage the shipment of grain instead of live stock or meat, from the grain-producing centers, but this fact, while it is not without some bearing upon the proper determination of the relation of rates, cannot, in view of the other facts above stated, be considered alone. The Interstate Commerce Commission has recognized [1] that whether grain shall be shipped to market, or fed where it is raised, may depend, in part, upon the relation of rates on grain and on live stock, and they have expressed the opinion that there ought to be, *to some extent*, a correspondence in the rates upon them.

§ 3

The Bearing of Water Competition on the Relation of Rates Charged for Carrying Different Kinds of Goods

In the Pearline and common soap case,[2] to which reference has already been made,[3] the Commission allowed a lower rate on common soap and a greater

[1] *Ibid.*, Vol. VIII, pp. 158–184. Date of decision not given, but apparently early in 1899.

[2] *Ibid.*, Vol. I, pp. 465–479. Decided February 15, 1888.

[3] § 1 of this Chapter.

discrimination in its favor in the case of traffic from New York to Atlanta than in the rest of Southern Territory. The reason for this was that between New York and Atlanta water competition existed via Savannah. This water competition did not affect Pearline, because Pearline could not so well be exposed to the dampness incident to water transportation.

In a complaint brought by the Merchants' Union of Spokane Falls,[1] in the early years of the Interstate Commerce Law, objection was made to the lower rates accorded Pacific Coast terminals than to Spokane, Wash. The Commission upheld the system in general, because of water competition at the coast, which did not apply to Spokane; but it was pointed out that no such discrimination could be justified in favor of articles which, without the discrimination, would still seek rail rather than water transportation.

Attention has already been directed, in another connection,[2] to the zone decision of 1911 regarding discrimination against intermountain territory in transcontinental rate making. The opening of the Panama Canal, and the consequent greater cheapness of coast to coast water transportation, caused dissatisfaction with this order on the part of the railroads, and they endeavored to have it modified. In this endeavor they were successful. The Interstate Commerce Commission, early in 1915, exempted about 100 commodities, as to which water competition was of peculiar force, from the provisions of the 1911 ruling, allowing the railroads, in the case of these commodities, to reduce

[1] Interstate Commerce Commission Reports, Vol. V, pp. 478–513. Decided November 28, 1892.

[2] Chapter X, § 8.

their terminal rates somewhat further, without corresponding reduction of their rates to intermediate points.[1] This decision has to do partly, of course, with the matter of discrimination between places. But it has to do, also with discrimination among commodities, since it makes possible special rate reductions in favor of those goods most apt to be carried by water.

For rulings of this sort, there is not lacking economic justification. The goods on which the specially low rates are made by rail between the towns having ship service would, in any case, have low rates. The railroads might refuse to carry them and, in consequence, be unable to utilize their facilities so completely. But a difference in rates would remain. For the railroads to seek this traffic may mean fuller use of railroad plant [2] without appreciably greater discrimination than would develop anyway.

§ 4

Value of Commodity in its Relation to Rates

In one of its early cases,[3] the Commission, while mentioning the importance of cost of service as an element in fixing transportation charges, said that cost, alone, was not a controlling consideration and that *the value of the service to the property transported* was also an essential factor to be recognized. If value of service is recognized because it has a bearing on the question of "what the traffic will bear," the economic propriety of

[1] See Interstate Commerce Commission Reports, Vol. XXXII, pp. 611–658. Decided January 29, 1915.

[2] Cf. Chapter VI, § 3.

[3] Interstate Commerce Commission Reports, Vol. III, pp. 473–511. Decided March 14, 1890.

its recognition is manifest. In the same way, value of commodity may properly be considered in connection with rate regulation, if it is shown to determine, in any degree, the effect of various rates on traffic. If it is possible to charge fairly high rates on valuable goods without greatly decreasing traffic, while cheap goods have to be carried at lower rates in order that traffic shall be large and facilities fully utilized,[1] these facts ought to be given due weight by a regulating commission. In a considerable number of cases, the Interstate Commerce Commission has mentioned value of commodity among the elements to be considered in arriving at a just rate. And the Commission has declared [2] that "the value of the article is important, principally, because of its bearing upon the value to the shipper of the transportation service" which has always been regarded by carriers as "one of the important elements to be considered when fixing the rates to be charged for transportation." Apparently the expression "value of service," as here used, is intended to have reference to "what the traffic will bear."

§ 5

"Devices" for Discrimination among Shippers

We have already seen [3] that section two of the Interstate Commerce Law makes illegal any discrimination among shippers by means of any special rate, rebate, drawback, or other *device*. The devices used to give discriminating rates without seeming to do so have been numerous. For example, a number of cases early came

[1] Cf. Chapter VI, § 3.

[2] Interstate Commerce Reports, Vol. X, pp. 428–455. Decided January 7, 1905.

[3] Chapter VIII, § 3.

before the Interstate Commerce Commission, in which it appeared that the railroads concerned furnished cars suitable for the carriage of oil in barrels, but carried oil in tank cars only for shippers who themselves owned such cars. The railroads then, in addition to paying rent to the shippers owning the tank cars, for the use of such cars in carrying oil, charged lower rates to such shippers than to those who shipped in barrels. The Commission forbade this difference in rates, on the ground that it was the duty of the transportation companies to furnish adequate equipment for moving the oil, and that if, for various reasons, the carriers allowed shippers to provide such equipment for themselves, this policy ought not to result in higher relative rates to those shippers who were obliged to use or who chose to use the facilities provided by the railroads.[1]

In the case of *Rice, Robinson and Witherop* v. *The Western New York and Pennsylvania Railroad Company*,[2] the Commission again emphasized the duty of the railroads to furnish necessary equipment. It was pointed out that when a carrier chose to use the cars of shippers, the carrier, in legal contemplation, adopted them as its own for purposes of rates and carriage and might not, by any device, such as payment of unreasonable rent for the use of such cars, discriminate between shippers. The allowance of 42 gallons or of any other number of gallons, for leakage, to the shipper in tank cars without a corresponding allowance to shippers in barrels, was declared to be unjust discrimination and unlawful. In this case, it was also ruled that if the tank used in

[1] See Interstate Commerce Commission Reports, Vol. I, pp. 503–593, and Vol. II, pp. 90–121. Decided February 23, 1888, and July 19, 1888.

[2] *Ibid.*, Vol. IV, pp. 131–157. Decided September 5, 1890.

carrying oil by tank cars was regarded as a part of the car and its weight not charged for in the rate, the barrels also must be so regarded and their weight not charged for to the shipper in barrels. On this last point, the rulings of the Commission have not been in all cases consistent.[1]

In another case,[2] it was complained by George Rice, an independent refiner of oil, that certain railroads were assuming a barrel of refined petroleum to weigh 400 pounds, while assuming a gallon to weigh 6.3 pounds when shipped in tanks, and that these constructive or hypothetical weights were so far out of proportion to actual weights as seriously to discriminate against the shipper of oil in barrels. It was also objected that the shipper by the tank-car method was allowed an arbitrary deduction of 42 gallons for leakage, whereas no such deduction was allowed in the case of barrel shipments. Both of these practices, the Commission regarded as indefensible discrimination.

Another "device" to make discriminating rates in favor of some shippers and to the disadvantage of others was considered by the Commission in 1904, *In the matter of Divisions of Joint Rates and Other Allowances to Terminal Railroads*.[3] The International Harvester Company owned the capital stock of the Illinois Northern Railroad Company and a controlling interest in the Chicago, West Pullman & Southern Railroad Company, which operated as terminal connecting roads in and about Chicago between the plant of the Harvester Company and various industries and

[1] See, for example, Interstate Commerce Commission Reports, Vol. I, pp. 503–593. Decided February 23, 1888.

[2] *Ibid.*, Vol. V, pp. 193–233. Decided April 9, 1892.

[3] *Ibid.*, Vol. X, pp. 385–404. Decided November 3, 1904.

railroads. Until shortly before the matter was considered by the Commission, these terminal railroads had received switching charges amounting to from $1 to $3.50 per car. They had more recently, however, arranged with the railroads for a division of the through rate, which often amounted to $12 per car. The new arrangement was declared by the Commission to be unlawful prejudice in favor of the International Harvester Company. Something of the same arrangement was found to exist in favor of the Illinois Steel Company, a subsidiary of the United States Steel Corporation, and was ordered corrected.

In a more recent case [1] it appeared that certain railroads transporting coal from coal mines upon their lines were, during a part of the year, unable to furnish all the coal cars needed. Some of the mining companies owned their own cars, for the use of which the railroads paid them a rental, and the question arose whether these cars should be counted with the rest in making proportionate allotments (according to capacity of mines) to the different mining companies, or whether the mining companies which owned cars should be entitled to the use of these cars and, in addition, to as large a share of the railway cars as if they had none of their own. The railroads had been following this latter plan. The Commission ruled that these "private" or mine-owned or leased cars must be counted with the cars owned by the railroads in determining the distribution. A mining company owning such "private" cars might properly receive its own cars, but might not receive more than these unless more were required to give such a company its proportionate share.

[1] *Ibid.*, Vol. XII, pp. 398–410. Decided July 11, 1907.

Without attempting to discuss all possible arguments bearing upon the expediency and justice of such a decision, we may profitably give attention to two important considerations. In the first place, it seems likely that a decision upholding the previous practice of the railroads in question would have tended to give very great advantage to those mining companies which were in a position to provide their own equipment, and would have given them such advantage without regard to their relative efficiency in their business of mining coal. Such a decision would have made it easy for railroads endeavoring to do so to ruin completely such mining companies as were unable to own cars. It would merely be necessary for the railroads, frequently or continually, to have a shortage of coal cars, so that companies relying upon the railroads for cars would be unable to fill their contracts, and so that the car-owning companies favored should be able gradually to take all the business. And such a result might be brought about by secret conspiracy between the favored mining companies and the railroads. But it is part of the proper business of the railroads, as common carriers, to furnish the equipment required for the movement of freight. If, instead of themselves providing the entire amount of rolling stock which may reasonably be regarded as essential, railroad companies allow shippers to provide part of it, the principal loss due to shortage ought not to fall upon shippers whose only offense is that they have not done or cannot do what it is the business of the railroads to do.

In the second place, it must be remembered that the cars provided by some shippers for their own use are, nevertheless, leased by the railroads. The railroads pay

rent for these cars while the cars are in use by the railroads. This rent, presumably, compensates the shippers for depreciation, and yields a fair return on their cost. Such shippers are not, therefore, deprived of all gain from their ownership of cars, merely because the railroads must assign railroad-owned cars more largely to shippers who have no "private" cars. And since the railroads pay rent for the use of the "private" cars, these are, for the time being, leased cars. Hence, it may be reasonably contended that such cars should be counted with the others in making car allotments, and that their owners are given ample consideration in being certain that these cars, at least, shall be assigned to them, and in receiving a fair rent for their use.

Complaint was also made that foreign railway fuel cars were not counted as part of the allotment of mines to which they were sent. These were cars of railways, other than those on which the mines were situated, which were purchasing coal for their own use. The Commission ruled that such cars should be counted with the others.[1]

In another case,[2] the complainants made objection, also, to the defendants' practice of not counting their own cars used for fuel as part of the allotment of a company receiving such cars. The defendants claimed the right to make private contracts for necessary fuel and asserted that they could make more advantageous contracts if not obliged to count their own fuel cars as

[1] The jurisdiction of the Interstate Commerce Commission in cases of this sort, and its authority to make such rulings, was upheld by the Supreme Court in *Interstate Commerce Commission* v. *Illinois Central Railroad Company*, 215 U. S., 452.

[2] Interstate Commerce Commission Reports, Vol. XIII, pp. 451–459. Decided April 13, 1908.

part of any allotment. The Commission adhered to its former ruling in the case of privately owned cars and foreign railway fuel cars but held that the defendants need not count their own fuel cars against the mines to which they were hauled for fuel.

In the case of *Armour Car Lines* v. *Southern Pacific Company*,[1] decided in 1910, it was complained that defendants' $3 per ton rate, applied up to August 4, 1907, for the transportation of ice in carloads from Los Angeles, Cal., to Yuma, Ariz., was unreasonable by its excess over the $1.90 rate thereafter charged. The Commission was asked to order reparation (since it may order refund of excess above a reasonable rate as well as prescribe a reasonable rate for the future) for the alleged overcharge on shipments which had moved at the higher rate. The defendant had promised a reduction at an earlier date but had delayed carrying its promise into effect. Counsel for complainant stated that complainants' contract for supplying ice to the railway had been made in view of the promised $1.90 rate. The Commission expressed the opinion, however, that "to sanction as a just basis for reparation the private understanding prior to the shipments the rate remaining unchanged until the shipments were made, would be to establish a precedent for the grossest discrimination and favoritism." Apparently to anticipate such an objection, it was testified that no other manufacturer or producer of ice in California could have entered into such a contract as had the complainant, because no other company was in possession of cars and other facilities for the transportation of ice as needed by the railroad.

[1] Interstate Commerce Commission Reports, Vol. XVII, pp. 461–463. Decided January 3, 1910.

But this contention, in the view of the Commission, did not meet the objection to the precedent of reparation in such a case. It was pointed out that even if the railroad had reduced its rate according to agreement, the complainant would thereby have had an advantage of exclusive knowledge over any competitors if there were any. "Midnight tariffs" could have afforded no better opportunity for discrimination than practices of this sort. Furthermore, if such transactions were to be justified in particular instances on the theory that the favored company had a monopoly of the traffic in question, so that there was no rival to injure, then the Interstate Commerce Commission would in many cases be led into an interminable, unsatisfactory, and often entirely vain inquiry to determine if any one had been disadvantaged. The Commission, accordingly, refused to order reparation, and dismissed the complaint.

§ 6

Summary

We have seen that the rulings of the Interstate Commerce Commission regarding relative rates on substitute goods and on goods which stand to each other in the relation of raw material and finished product are, for the most part, consistent with the economic principle that, in those cases particularly, discrimination should be reduced to a minimum. Since most substitutes are only partial substitutes, and since most raw materials either require other goods to be joined with them in producing any particular finished product, or are themselves largely otherwise used, or both, it is not often possible to make out a good case against a limited degree

of discrimination. Goods in the transportation of which the railroads have to meet water competition, the Commission allows to be carried on the railroads, where water competition is to be feared, at relatively low rates. For this, there is economic justification. The Commission has also recognized that, in general, valuable goods will bear relatively high rates, while cheap goods must be carried at lower rates in comparison with cost of service.

Various devices to give especially advantageous rates to favored shippers were mentioned, and the adverse rulings of the Interstate Commerce Commission set forth and discussed. In general, these rulings, though they may not always commend themselves to us at first glance, appear on further analysis to be sound and, in the majority of cases, necessary.

CHAPTER XII

Uneconomical Government Interference with, and Encouragement of, Transportation

§ 1

Navigation Laws

One of the important methods which governments have sometimes followed, in order to develop a national mercantile marine, has been the method of navigation acts, excluding foreign vessels from certain designated commerce. For example, England's navigation acts of 1646 to 1660 (act of 1651 perhaps of chief importance) prohibited the importation of any goods into England or Ireland or any of the British colonies, except in British ships, owned and navigated by British subjects, or in ships of the country where the goods were produced; also these laws prohibited the export to foreign ports of any goods produced in the American colonies, except in British ships.[1] Our own Federal law regarding the coasting trade is of the same genus. This law requires that "no merchandise shall be transported by water, under penalty of forfeiture thereof, from one port of the United States to another port of the United States, either directly or via a foreign port, *or for any part of the voyage*, in any other vessel than a vessel of the United States." [2]

[1] See Lindsay, *History of Merchant Shipping*, London (Low, Low and Searle), 1847, Vol. II, pp. 182–189.

[2] 30 Stat. L. ch. 26, p. 248. Referred to in the Report of the Commissioner of Corporations, on *Transportation by Water in the United States*, Part I, 1909,

Such navigation acts are closely analogous to protective tariffs. Like protection, they develop the favored home industry by excluding foreign competition, not, as in the case of the bounty, by providing funds to help meet this competition. Like protection, these laws can do no more than guarantee home patronage; they cannot insure successful invasions of other commerce, dependent solely on foreign patronage. As with protection, the burden of these laws rests upon consumers (of goods carried in the protected ships), rather than upon taxpayers as such. The burden rests upon consumers, because the exclusion from the designated commerce, of ships presumably able to carry goods more cheaply than the favored domestic ships,[1] tends towards high transportation rates, and, therefore, towards higher prices to consumers, of goods carried, or towards decrease of domestic commerce, or both. The burden of such a policy may not be equally distributed over a country enforcing it, but may rest with especial weight upon those sections of the country which, being on or near the coast line, have most to gain from cheap water transportation. A navigation policy like that established by the historic navigation laws of England, above mentioned, may also tend, by increasing transportation costs, to limit the export trade of the country adopting such a policy. Only in case other countries have no available alternative source of supply for goods desired, can the extra cost of

pp. 118, 119. Since the above was written, Congress has passed a law (August, 1914) admitting foreign-built ships to American registry if owned or purchased by Americans (See *New York World*, August 18, 1914). Such vessels were not previously ranked as American and had to sail under alien flags. But the new law does not permit foreign-built ships to engage in the coasting trade.

[1] If the latter carried goods more cheaply, they could drive out foreign rivals without legal aid.

carrying these goods rest as a burden on the consumers of those other countries.

The main argument against navigation laws is the same as that against protection. Like protection, it diverts labor and capital from lines which they would otherwise follow, into relatively unprofitable lines. These laws are, therefore, as indefensible, economically, as are protective tariffs. Where navigation laws would be likely to develop a national marine, able, eventually, to compete in the world's commerce successfully without aid, there is a reasonable probability that conditions are favorable to this success and that it would be attained in time without government coddling. Where, in spite of navigation laws intended to develop a national marine, ability to compete outside of the protected limits is never attained, the protective laws involve a continuous burden on the general public. Whatever military justification may exist for such protection to national navigation, economic justification is usually absent, and is probably always of doubtful weight.

§ 2

Subsidies to Native Shipping

Another method of encouraging a national mercantile marine is that of paying so-called shipping subsidies. Shipping subsidies are simply bounties paid to the shipping industry. What has been said elsewhere[1] regarding bounties applies, therefore, to shipping subsidies. Like bounties and like protective tariffs, shipping subsidies divert national industry out of its natural lines into a line which, without such encouragement, it

[1] Part II, Chapter VII.

probably would not follow, or which it would not follow to the same extent. Unlike protection, subsidies do not exclude foreign competition, but simply endeavor, by money payments, to make it possible for the national marine to meet this competition. As with other bounties, therefore, the burden falls upon taxpayers, rather than upon shippers or ultimate consumers. The two last classes may even gain somewhat, if a subsidy is sufficient to cause lower freight rates in spite of the greater cost of transportation in native ships. But even these classes will gain nothing if a subsidy is just high enough to enable native ships, previously unable to compete, to charge rates no higher (and no lower) than those charged by foreign ships.

One of the cruder arguments for subsidies, as for protective tariffs, is to the effect that when we patronize foreign vessels we have to send our money abroad, and that we would "save" this money if we carried the freight in our own vessels. As a matter of fact, money is not the one thing for which trade, in the last analysis, is carried on. Furthermore, if money flows out unduly, it thereupon begins to flow back again, in accordance with the principles which we have so often set forth in the discussion of other problems of commerce.[1] As regards the most economical directions of industrial and commercial development, it should be apparent that if British or other ships can carry goods more cheaply than our own merchant marine, then our labor may better be devoted to the lines where it yields greater returns, to services which others cannot so well perform for us, to our factories, farms, mines, and railroads. If American labor is more profitable when devoted, for instance, to

[1] See, for example, Part I, Chapter V, §§ 6, 7, 8.

the running of railroad trains, then it is poor economic policy to draw it, by subsidies, into the running of ships.

Another argument for subsidies is based on the assertion that "trade follows the flag." This assertion, used in relation to subsidies, suggests that a national merchant marine acts as a species of advertisement; that, for example, the American flag flying at the mast head of a merchant ship will stimulate a desire in South America or elsewhere, to examine, and, therefore, eventually to buy, American goods. Except for purposes of advertisement, foreign ships serve as well to carry American goods to market as do American ships, and better in proportion as they carry these goods more cheaply.

Probably there is some advertisement for a country's goods in the ubiquitousness of its merchant ships. Yet we must beware of exaggerating the amount and the value of this advertisement, and of overlooking its cost. France has made considerable effort to develop shipping and has hoped thereby to develop foreign commerce, while the United States has done almost nothing to stimulate foreign trade in American ships; yet a practically stationary foreign commerce of the former country has been contemporaneous with an extensive growth of the commerce of the latter.[1] "The history of the world's commerce seems to show conclusively that the nationality of ship owners is quite a secondary matter in the development of trade."[2]

So far as the presence of a nation's ships, *e.g.* American ships, on the high seas and in foreign harbors really tends by its advertisement to stimulate American export trade, it would seem that the persons having to pay for

[1] Meeker, *History of Shipping Subsidies* (in publications of the American Economic Association, August, 1905), p. 213. [2] *Ibid.*

this advertisement should be those who expected to reap special gain from it. Why should not merchants and manufacturers who are interested in exploiting the trade of any part of the world, and who seriously think that the presence there of vessels flying the American flag will bring them a larger market, be willing to subscribe to the stock of American lines, or pay a little extra to have their goods carried in American vessels, or both? Is it not possible that American merchants and manufacturers will not do this to any great extent, because the gain would be so small as not to equal the cost? Hard-headed business men spend a great deal of money in advertising. Some of them are enthusiastic over the assumed gains of this particular kind of advertising if it is proposed that it shall be done at public expense by means of subsidies. But would they consider the rather problematical results of such indirect and indefinite advertising worth paying for out of their own business profits? By the subsidy method, many persons and many sections of the country are taxed to secure results which may be of little or no benefit to them and which are probably of not very much benefit to any one.

Another argument in favor of subsidies is one that corresponds to the infant industry argument for protection. It is urged, in this view, that subsidies should be given to divert industrial and commercial activity more largely into shipping, in the hope that the merchant marine will develop in efficiency until it is able to stand alone. An important counter-argument is the fact that no one is able to foresee with any certainty whether or not the shipping industry ever can stand alone and that legislators are less likely to risk the public wealth wisely than business men are to risk their own. There

is great danger that subsidies, once started, would continue indefinitely on the plea that they continued to be necessary.[1] And if, as a consequence of a subsidy system, the national mercantile marine should become larger, though at the general expense, then the political pressure to maintain the subsidy system would very probably become greater. It is altogether too probable that if the giving of subsidies is generally recognized as a proper function of government, men who would otherwise devote themselves to planning improvements, and to seeking real progress in efficiency, will instead devote themselves to influencing political action, in order that they may get, or maintain, or increase, a subsidy.[2] This method of acquiring gain is not consistent with the ideal of industrial and commercial morality. Industry and commerce should be so organized that profits will be made only by serving the public, and that profits will be large to any person or firm in proportion as that person or firm serves the public well. The prosperity of those engaged in operating a nation's merchant marine ought not to be made dependent upon their political influence rather than upon their economic service.

Apart from purely economic considerations, shipping subsidies are sometimes urged as a means of increasing a nation's naval strength. Two principal naval reasons are commonly given for the maintenance of a merchant marine, even at the expense of a subsidy. The first is the desirability of having a "naval reserve" made up of large and swift merchant steamers suitable for conversion into cruisers, colliers, and transports, should need for such arise. As a matter of fact, it is only as colliers

[1] Meeker, *History of Shipping Subsidies*, p. 81.
[2] *Ibid.*, p. 216.

and transports that such vessels are likely to be useful, since ships of war are nowadays highly specialized, and merchant vessels cannot, economically, be made over into cruisers.[1] The second reason is the desirability of having experienced seamen from whom to recruit colliers, transports, and additional fighting ships when war threatens, to replace those killed and wounded, to hold captured vessels, etc.

These objects may be perfectly justifiable, even laudable, in themselves. And it may be cheaper to pay subsidies to certain lines, thus helping to keep them in ships and men capable of emergency use by government, but letting them be mainly supported by commerce, than to support, continuously, and wholly at public expense, a larger naval force. But if the policy of subsidizing ships appears necessary to us for military reasons, we should frankly recognize that this policy involves an economic loss, that it is an expense borne for the same purpose as the expense of maintaining a navy. We should not deceive ourselves into the belief that the subsidizing of ocean navigation is an economically profitable policy. We should therefore aim to get the largest military result possible at the smallest possible cost. Large payments to swift mail lines and possibly to certain other ships constructed for speed and carrying capacity and conforming, in other ways, to possible emergency requirements mark the limit beyond which we should not go in subsidizing, even if we should go so far. Subsidies granted according to these principles are payments for certain definite services or potential services, and are not to be classed with subsidies granted for purely commercial reasons.

[1] Meeker, *History of Shipping Subsidies*, p. 215.

§ 3

Government Operation of Merchant Ships

During the last several months, considerable effort has been made to bring into public favor, in the United States, and to get through Congress, a plan for the Federal purchase and operation of merchant ships to engage in foreign trade. A bill for the carrying out of the plan failed of passage in the last session of Congress, but at present writing (November, 1915) there seems reason to suppose that a new bill, embodying substantially the same provisions, will be presented during the coming session. The proposed new bill, as recently outlined by Secretary of the Treasury William G. McAdoo,[1] contemplates an appropriation of $50,000,000, and the establishment of a shipping board to supervise its expenditure and to have permanent control of the government's investment. This shipping board is to consist of the Secretary of the Navy and the Secretary of Commerce, ex-officio members, and three members who shall be appointed by the President with the consent of the Senate. The board is to be empowered to organize a corporation or corporations, to subscribe in whole or in part to the stock issued, and to vote the stock of the United States in the election of directors. The proposed scheme is, therefore, a scheme for government ownership and operation of ships, through the intermediation of one or more corporations.

Among the purely economic arguments for this measure, it is urged that the government may make a profit out of the business; that even if the ships are operated

[1] At Indianapolis, Ind., October 13, 1915. See *The Journal of Commerce and Commercial Bulletin*, New York, October 14, 1915.

at a loss, it will be worth while for the sake of developing American commerce, *e.g.* with South America and Asia; and that American shippers may thus be protected against the exorbitant rates which private companies might charge and which, owing to the scarcity of merchant shipping service caused by the present war, it is asserted they are charging.

It is not likely, however, that government operation can succeed better, if, indeed, it can succeed so well, from a financial viewpoint, as operation by private companies; and it is entirely possible that the hoped-for profits might prove to be substantial losses, as often occurs in private business. Still less may we assume that anticipated commerce which can only be developed and, perhaps, only maintained, by transportation in government-owned (or otherwise subsidized) ships at less than cost, and therefore, at the expense of the tax-paying public, is worth while. Nor, thirdly, is it to be uncritically concluded that rates would be more effectively regulated and shippers better protected by government competition with private companies, than they could be by such further extension of direct regulation as experience may show to be desirable. The temporary scarcity of ships would not be relieved by the fact that some of the ships were owned by the government. And it is by no means certain that the government's building policy would more wisely adjust the number of ships to the need for them than the building policy of private companies.

Another argument has been advanced in favor of the measure, which, although owing its validity to the possible interference of foreign wars with American trade, is, in a sense, an economic argument. This is that re-

liance upon the merchant marines of foreign countries leaves us relatively helpless when, these countries being engaged in war, their merchant ships are liable both to capture by enemy war vessels and to commandeering as transports, colliers, etc., by their own governments. If, therefore, an American merchant fleet is securable only at the expense of American taxpayers, the taxes paid during ordinary times to make good its losses may be regarded as insurance premiums against a time when such a fleet might be our sole reliance for trade. It is fairly open to question, however, whether any reasonably probable conditions would justify such premiums in the form of subsidized government (or private) navigation lines, unless the necessary subsidy were so small as not to be an appreciable burden.

It ought to be said, however, in fairness to the advocates of the measure under discussion, that their support of it rests partly on asserted advantages of greater naval strength. The importance of auxiliary vessels in time of war is emphasized and, no less, the importance of having trained American officers and seamen, willing to fight for the United States, who may be availed of in possible emergency. From a purely military point of view, it may be that a government-owned line or lines of ships, which should consider naval requirements first and commercial requirements only incidentally, would have some advantages over subsidized private lines which would consider naval requirements only to the extent specified by government as a condition of receiving a subsidy. Certainly, too, such a government line might better engage in trade, even at a loss, than be wholly supported by the tax fund. But purely military or naval considerations can hardly be urged in favor of

the acquisition by government of more or different ships than are reasonably necessitated by naval requirements.

§ 4

Indirect Subsidies, Favoring Native Ships as Compared with Foreign Ships

A country may try to extend and develop its own merchant marine, to the consequent decrease (or slower increase) of the number of foreign ships, by indirect as well as by direct subsidies. Any service which a country, through its government, performs for its own ships without pay, while charging foreign vessels for it, is equivalent to a money subsidy.

Were it not for clear treaty obligations, there would probably be, in the United States, as strong a demand for free use of the Panama Canal by all of our American merchant ships, as there has actually been for its free use by American vessels engaged in the coasting trade.[1] To let American vessels use the Panama Canal free would be equivalent to a money subsidy, because it would amount to the same thing as to make a charge for the use of the canal and then to make a payment equaling this charge, to American shipping interests. In either case, the taxpayers of the nation would bear a burden, or lose a chance for lower taxes, that special interests might be encouraged. For if letting American ships use the canal free would mean that the canal could never pay a reasonable return on its cost, then taxpayers must meet the deficit by taxes paid to government over a series of years, in order to liquidate, or at least pay in-

[1] For a discussion of the economic advisability of giving American coasting lines this special privilege, see § 5 of this Chapter.

terest upon, the indebtedness caused by building. If, on the other hand, though all American ships used the canal free of tolls, the amounts collected from foreign ships would suffice to pay interest on the debt contracted, still this interest might be had and more besides, were the American lines also made to contribute.[1] In other words, to allow American ships free use of the canal must, in any case, mean either a loss or a smaller net revenue yielded to the government than might otherwise be yielded. If the canal is to yield the nation a revenue because of its use by foreign ships, that revenue should be used to lighten the burden of taxation on the whole people; it should not be used to encourage a single industry by giving it something for nothing. Thus to encourage American shipping would be to give it an artificial advantage over other American industries, and would be, in so far, to interfere with the tendency of labor and capital to engage in the industries really most profitable for the nation. There is no economic gain[2] in having our commerce carried in American ships if foreign ships are able to carry it more cheaply. Nor would the prosperity of the nation as a whole, including those who bear the burden of taxation, be so much furthered by having our commerce carried in American ships which could pay little or nothing for the use of the canal, as by having it carried in foreign vessels which

[1] It is not intended to assert that either American or foreign ships should be charged exorbitant rates. Such rates on ships carrying American commerce, of whatever nationality the ships might be, would tend to discourage this commerce, even when it could pay the proper costs of its own movement and would therefore be profitable. As to the effect on American welfare of exorbitant rates charged ships not carrying American commerce, see footnote at end of this section.

[2] Unless we assume a gain from the advertisement thus secured. See § 2 of this Chapter.

could pay a reasonable amount for its use without charging correspondingly higher transportation rates. Assuming these to be the relative abilities of native and foreign vessels, the foreign vessels would be a more economical means for us of carrying our commerce than our own; for them to carry it would mean either lower rates and, therefore, lower prices to consumers and higher prices to producers, or larger returns to the government, favorable to taxpayers, or both such lower rates and higher prices; for them to carry our commerce would mean gain to our people as producers and consumers, or as taxpayers, or as both. It would be desirable, therefore, for our capital and labor to seek other kinds of activity; but this is just what discrimination in the rates charged for use of the canal would prevent.[1]

§ 5

The Free Use for Navigation, of Government-built Canals

Since to give free use of the Panama Canal to all American ships and to no others seemed clearly to involve a violation of treaty obligations, Congress was content, in the Panama Canal Act of 1912, to confer this privilege only upon American ships engaged in the coasting trade. Even this lesser tolls exemption appeared to many to be a violation of treaty rights; and the law

[1] Were we to plan, intelligently, so to discriminate in rates charged for use of the Panama Canal, as to pay for it, as largely as possible, at the expense of foreigners, we would base the discrimination on the sources and destinations of goods carried, rather than on the nationality of the ships which carried them. Goods going to and from the United States would be allowed, perhaps, to pass through the canal at fairly low rates, lest American consumers or producers be unduly taxed; while goods going from one foreign country to another would be charged the highest rates possible to collect.

has recently,[1] at the request of President Wilson, been changed in this regard so as to require the same charges from American coasting vessels as from all other merchant ships. We shall discuss, here, the possible economic effects of tolls exemption for American coasting ships. As we have already seen,[2] the Federal government assures American vessels a monopoly of the coasting trade, including the trade from any port of the United States to any other port, *e.g.* from Baltimore to San Francisco. Free use of the Panama Canal by American vessels engaged in the coasting trade could not, therefore, increase our mercantile marine at the expense of foreign rivals in the trade. The primary effect of free tolls to this special class of ships would be to reduce the expense of coast to coast trade, and therefore, supposedly, to reduce rates. Possibly foreign vessels could carry at the lower rates, even without free tolls. If the coasting trade were open to foreign ships, the effect of discrimination in favor of American vessels engaging in this trade might simply be that the American ships would be able to get part of the trade away from their foreign competitors, at substantially the same rates. As it is, such free tolls would tend to make rates lower than they would else be, though much of the saving might be diverted to the owners of monopolistic navigation companies. Hence traffic would be encouraged to go through the canal which otherwise would not.

The construction of a canal across the Isthmus of Panama, to be used without charge by American coasting vessels, would therefore mean that traffic from the East to the West, and *vice versa*, which is not worth the whole cost of carrying, might nevertheless be carried

[1] June, 1914.

[2] § 1 of this Chapter.

at the expense of the tax-paying public. If it is worth $5000 to get certain goods from New York to San Francisco, and the cost of carriage, including proper payment for all necessary facilities, is $6000, and if this cost is covered by the charge made, the goods will not be sent. It will be more economical to have a greater degree of local self-sufficiency and less geographical division of labor. But if the taxpayers should contribute more than $1000 in the form of maintenance and running cost of the canal, and interest on its cost of construction, then the goods would be shipped, for the charge to the shippers could be made less than $5000. The total cost would be $6000 and the total gain would be $5000. There would be a real net loss. But this loss would be borne by the taxpayers, and therefore the traffic would be carried.

Again, the encouragement of the coasting trade by the building of an Isthmian ship canal to be used by coasting vessels, free of charge, might mean that goods would be carried by water or partly by water, at the taxpayers' expense, which might be more economically carried by rail. Suppose that a quantity of goods can be shipped from New York to Salt Lake City by rail for $4000, including a proper allowance for wages of employees and something towards profits. Suppose that, at the same time, the cost by water and rail, including risk, damage, longer time in transit, maintenance cost of the canal and interest on canal facilities provided, is $5000. One thousand dollars may be saved if the goods go by rail, and to make them go by the other route, if we include interest on the cost of partly constructing this route for them, maintenance expenses, etc., would be to waste $1000. The community or the nation would

be so much poorer, yet if the government were to provide the $1000 or more in the form of canal facilities paid for, eventually, by the taxpayers, shippers would gain by using the waterway route.

It is not asserted, of course, that all goods ought to pay in the same proportion to use the canal, if discriminations should prove to be practicable. If the plant is incompletely utilized, it may not be improper to let some goods go through for comparatively low rates, provided they would not otherwise go at all. But no goods ought to be allowed to go through which cannot pay at least a fair share towards running expenses, wear and tear from use, and (probably) a little towards interest. And the canal should not have been built (military considerations aside [1]), unless it was expected that the traffic through it, as a whole, would be enough cheaper to pay interest on it. To build it, if it could not be made to pay, was economic waste, was, as above pointed out, to encourage transportation not really worth its total cost to the people. Now that the canal is completed, it would be unfair to the American people as a whole that the traffic which goes through it should not, if possible, pay for it, that those who realize the chief benefit should not contribute in proportion to the benefit realized.

Here, as in the case of protection, we meet the possibility that government interference with the direction of industry may affect differently the people of different sections, benefiting some at the expense of others. It is obviously only that part of our population living on or reasonably near the coast, which has much to gain from subsidizing, directly or indirectly, coast to coast water

[1] As a matter of fact, it is hardly to be doubted that economic considerations had great weight in inducing its construction.

transportation. Those living in the far interior will, in any event, have to rely mainly on other means of transportation. Yet by the scheme of indirect subsidizing under discussion, but which has, fortunately, been abandoned, those in the interior would be made to contribute to the cost of facilities of transportation which others use and which they cannot use in the same degree.[1]

The principles above elaborated apply equally when government builds canals in the interior, if traffic is allowed to use these canals free of charge. New York State is now enlarging the once busy and profitable Erie Canal at an estimated cost of not less than $100,000,000, in order that it may carry barges of 1000 tons' capacity from the Atlantic Ocean to the Great Lakes and *vice versa*. The plan is to charge nothing for the use of the canal. This will mean a burden on the taxpayers of the state, an uncompensated loss to the taxpayers in those parts of the state which cannot economically use the canal either to market their produce or to obtain goods for consumption. It amounts to a gift by the taxpayers of the state of New York to those producers and consumers in other states who can sell their products for more or buy desired goods for less, because of the free use of the Erie Canal. It involves encouragement to transportation via the canal of goods which might better go by railway or by the St. Lawrence River. If the traffic which is expected to use the canal would be able to pay the cost of operation and maintenance, and interest on the $100,000,000 or more sunk and to be sunk, then it

[1] An excuse for such discrimination against dwellers in the interior might perhaps be found in the fact that those living on the coast chiefly bear the burden resulting from the limitation of the coasting trade to American vessels. Two policies, each tending towards economic waste, would partially offset each other as regards inequality of effect.

should be charged this cost and interest, to the end that those who reap the benefit of the canal in lower cost of carriage, and in prices of goods higher to producers and lower to consumers, shall pay for the advantage so secured; and that those who reap the most gain shall pay the most; and to the end that the burden shall not fall upon the general public without any regard to proportionate use and to benefits received.[1] If, on the other hand, it is not believed that those using the canal can meet such charges and still find it profitable to carry goods over it, then we must conclude that the canal ought not to be (or, in part, to have been) enlarged, since the total expenses, including cost of this enlargement, of carrying goods over it, will probably be greater than the benefits to be received from transporting the goods, or will be greater than if the goods were carried over another route, *e.g.* a railroad.

Before the days of railroads, much confidence was felt in the possibilities of canals. A number of our states expended a great deal of money in canal building. Today it is generally recognized that, since the capital cost of canals is a tremendous initial expense, railroads are usually cheaper. Only in a comparatively few cases can canal building be expected to pay. These are, first, cases where the canals connect navigable waters located near to each other, and between which, if they are connected by a canal, there will be large traffic; second,

[1] It is no sufficient answer to this contention to cite the usual practice regarding our numerous streets and roads. To charge tolls, individually, on each person as he used any given street, would obviously be an intolerable nuisance. These facilities we must have, anyway, and substantial justice may be secured, if care is taken to avoid extravagance, by levying on local property owners according to some fair system. Since land values depend largely on streets, etc., it may be possible, by basing assessments or taxes on land values, to make costs to different persons vary, on the whole, in proportion to benefits.

cases where comparatively short canals, like the Suez Canal, save a very great sailing distance and so are extensively used; third, cases more doubtful, where short canals connect with the ocean great cities which have grown up not far from it.[1] "Practically all the canals now in most successful use are ship canals, forming comparatively short links between important natural waterways, and opening up extended routes of transportation by water for large vessels. Such short-link ship canals are to be clearly distinguished from long inland canals, and the success of the one offers no safe criterion as to the probable success of the other."[2] Moulton's study of the much-vaunted waterway system of Germany seems to provide conclusive evidence that canals are as cheap as railways for shippers, only if the taxpayers, in effect, help pay the freight, and that, in general, canals and canalized rivers involve tremendous loss to the nation which undertakes their construction, and are therefore a source of industrial and commercial weakness rather than of strength.[3]

If there were adequate reason to believe that canals, generally, were cheaper and more satisfactory means of transportation than railroads, it would not be necessary to have public agitation and political pressure to get canals built. Private companies would undertake to build them for profit, just as they build railroads for profit, and just as canals were built, in England particu-

[1] Preliminary Report of United States National Waterways Commission, 1911, pp. 13, 14. Reprinted in Final Report, 1912, pp. 75, 76. See, however, as to an example of the third class of cases, viz., the Manchester Ship Canal, Moulton, *Waterways* versus *Railways*, Boston and New York (Houghton Mifflin Co.), 1912, Chapter VII.

[2] Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part I, p. 45.

[3] Moulton, *Waterways* versus *Railways*, Chapters IX, X.

larly, before the days of railroads.[1] As a matter of fact, investors are not clamoring for a chance to buy the securities of such companies, nor are promoters eagerly looking for opportunities to project new lines. When the building of canals is mentioned favorably, the assumption is always made that taxpayers shall bear the burden, or at least the risk, of building them.

§ 6

The Improvement of Harbors

Water transportation which is not worth its cost may likewise be stimulated by a wrong system of harbor improvement. In the United States, the construction and care of lighthouses, the building of breakwaters, the dredging of harbors, and the dredging of channels between the sea and harbors, are done largely by the Federal government.[2] It cannot be said that nothing is paid towards the expenses involved, by the traffic aided, since the tonnage dues collected by the government amount to $800,000 or $900,000 a year.[3] But considering the fact that the Federal government appropriates about $5,000,000 a year for lighthouse maintenance alone,[4] and, on the average, appropriates millions of dollars each year for dredging, breakwater construction, etc., the traffic entering and leaving the ports of the United States cannot be said to bear the costs which it occasions. Rather

[1] *Ibid.*, p. 99.

[2] Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part III, 1909, pp. 39, 40.

[3] Johnson, *Ocean and Inland Water Transportation*, New York (Appleton), 1911, p. 252. Given in Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part I, p. 404, as $1,076,571.69 in 1908. The coasting trade is free even from this.

[4] *Ibid.*, p. 262.

is this traffic, in a considerable degree, subsidized at the expense of taxpayers. As with canals, so with lighthouses and harbors, we must conclude that those who benefit by them should be the ones required to pay for them, and that to place the burden of their construction and support on the general public, with no reference to benefit received, is undesirable and unfair.[1] We must further conclude that constructions and improvements made in harbors, for which the traffic using the harbors cannot afford to pay, involve national economic loss and ought not to be undertaken.

In many cases the money spent in harbor improvements by the Federal government is wholly or partly wasted, for appropriations are frequently made for which there is no economic justification and for which there would be no economic justification even if the largest sums possible were to be realized by charging the users. Such wasteful appropriations are doubtless in part due to lack of business sense among legislators. They are perhaps more largely due to the pressure of local interests. The very fact that these appropriations are so largely made by the central government, and that there is, or

[1] It is not a sufficient answer to the above argument, to assert that our tariff system taxes trade and that therefore this trade pays for itself by paying for the facilities used. For the burden, nevertheless, does not fall where it properly belongs. It does not fall anything like evenly on all traffic which uses the facilities provided. On some goods the tariff has been, until recently, prohibitive, artificially interfering with normal and profitable trade. On other commerce and on passenger traffic, the tariff duties are little or nothing. Such commerce and traffic may, in effect, be receiving a subsidy, while the remainder of commerce is burdened. The principle of charging the cost of facilities provided to those who use them and upon different interests in some proper proportion to the benefit received, is not conformed to. We fall far short of the economic ideal when we set up contradictory policies of discouragement and encouragement. These contradictory policies do not exactly neutralize each other, but in one case there is a net loss in one direction, and elsewhere there is a net loss in another direction.

seems to be, a chance for interested localities to get something for nothing, results in expenditures which would not be made if the localities particularly concerned had always to provide the means, or if private capital had to be induced to do so.[1]

A different system, and one which is economically more defensible, is that common in Great Britain. There the central government, except as naval considerations may be involved, does nothing whatever by way of harbor improvement, but leaves this matter to the localities immediately concerned. The British system of harbor improvement and maintenance requires the creation for each harbor of a so-called "public trust" or public harbor trust.[2] A public harbor trust is a semi-public body or a corporation, authorized by parliament, to which body is granted power to own, improve, and manage a particular harbor. It has been compared[3] to the board of trustees of an American university or charitable institution. The members receive no salaries, but regard their position as an honorary one. The composition of a harbor trust is determined by statute. Representatives are usually selected by the British government, the government of the city concerned, boards of trade and chambers of commerce, ship owners' associations, and other interested parties. Money is borrowed for necessary improvements, usually at low rates, for the harbor trust is authorized to collect port and dock charges from vessels utilizing the facilities given, and this power makes the security good, at least in the case of a port sure to have

[1] Cf. Preliminary Report of National Waterways Commission, p. 20 (Final Report, p. 82).

[2] Described in Smith, *The Organization of Ocean Commerce*, Philadelphia (Publications of the University of Pennsylvania), 1905, pp. 129, 130.

[3] *Ibid.*

large traffic. Sometimes money is borrowed from the municipality itself. In any case, money needed, in excess of what has been collected in previous years from traffic, is borrowed, and must be paid back out of future collections. There are no stockholders, and, therefore, there is no attempt to make a profit above a fair interest and sinking fund. Indeed, a private corporation authorized to collect tolls from all the shipping of a port, for the sake of dividends to stockholders, would, unless strictly regulated, be an intolerable monopoly.

But the British system of harbor control does make the traffic pay for the facilities required, and is in so far consistent with the economic principles so wisely applied to British trade and commerce generally. There is no attempt to encourage trade which is not nationally profitable, by partly supporting it, *i.e.* by providing free harbor facilities at public expense and, therefore, at the expense of other lines of economic activity, any more than there is the attempt to interfere with nationally profitable trade by high tariff duties. The public trust unites responsibility with direct action. It furthers efficiency, economy, and lowness of rates, but it does not subsidize.

The function of maintaining lighthouses, however, almost of necessity devolves upon a central government. No city or private corporation is in a position to perform this function and make the traffic benefited pay for the service provided, since much of the benefit will be received by vessels which have no occasion to visit the particular city or to come within reach of the particular corporation. The British government, therefore, maintains the lighthouses, but collects "light dues" in return, amounting to about $2,500,000 yearly, from vessels

entering English harbors. These dues pay the entire yearly cost of maintaining the lighthouses and about $250,000 a year besides.[1] Here, also, is no policy of subsidizing, no attempt to foster one industry at the taxpayers' expense, or to encourage an undue and uneconomical geographical division of labor.

§ 7

The Improvement of Rivers

The responsibility for the improvement of rivers, like that for the improvement of harbors, has rested, in the United States, chiefly with the Federal government. The work done has included the removal of obstructions to navigation, the deepening of channels by dredging, the construction of revetments, and the development of slack-water navigation by the building of locks and dams to maintain a navigable depth. Improvements of this sort have been carried out, to some extent, on most of the navigable rivers of the country. But the appropriations of Congress for these purposes have not always been wisely made, nor has the distribution of improvements throughout the country been influenced solely by commercial or economic considerations.

Let us notice one or two typical instances of Federal activity in river improving. To improve the Mississippi River, the government has spent, in all, more than $90,000,000.[2] Of this amount, $15,000,000 has been spent on the 200-mile stretch between the mouths of the

[1] Johnson, *Ocean and Inland Water Transportation*, p. 262. If the slight charge above yearly cost is criticized, it should be remembered that a reasonable return on investment is not an improper aim.

[2] The Report of the Commissioner of Corporations on *Transportation by Water in the United States*, 1909, Part I, p. 47, gives $97,685,920.

Missouri and Ohio rivers.[1] But the traffic on this stretch of the river, including that of St. Louis (which is located between these points near the Missouri), has steadily decreased. In 1880, upwards of a million tons of freight were shipped from St. Louis. In 1900, the amount aggregated only 245,000 tons, and in 1911, only 191,965 tons. Is it safe to assume that there has been so much saving in the expense of carrying this traffic, as compared with what it would have cost to carry it by rail, or to carry it on the unimproved river, as to compensate for the money sunk? Would those who have used this section of the river have been willing to invest, jointly, the $15,000,000, in order to have the better navigation conditions which that investment has made possible?

If there remains any doubt in this case that money has been unwisely spent, there can be no doubt in other cases that public funds have been wasted for the sake of returns to private interests and to limited territories, almost incomparably less than the general loss. The Big Sandy River is a tributary of the Ohio River. The Big Sandy and its two branches or tributaries, the Tug and Levisa rivers, lie in Kentucky and West Virginia. On their improvement, the Federal government has spent, in all, about $1,700,000. Excluding timber, which can be and commonly is floated down-stream, the average yearly traffic on these rivers is about 2000 tons. Reckoning interest on this $1,700,000 as only $40,000, or less than $2\frac{1}{2}$ per cent. a year, the annual cost to the United States of providing facilities for this traffic is $20 per

[1] The facts and figures in this and the next paragraph are taken chiefly from an article by Herbert Brace Fuller, in the *Century Magazine*, January, 1913, pp. 386–395, entitled "American Waterways and the Pork Barrel."

ton a year. Adding $20,000 a year for maintenance, we have a cost of $30 a ton.

Average railroad charges in the United States are considerably less than one cent per ton mile.[1] For low-grade freight (the only kind which makes much use of inland waterways) going long distances, railroad charges average very much less than this, probably markedly less than a half cent. The facilities provided by the government on the above-mentioned three rivers would, therefore, have to reduce the transportation cost upon them to zero, in order that the construction or investment by the government should be proved worth while, unless the traffic benefited moved an average distance of over 6000 miles. For even at zero cost of carriage, each ton carried one mile would secure a saving of but one half a cent. And unless it were carried 6000 miles, the total saving would not amount to the $30 interest and maintenance cost.

What is the reason for the numerous appropriations of this sort made by our government? A partial explanation may be found in the current American practice of donating to commerce the improvements made, and letting the general public bear the burden in indirect and, therefore, hardly realized taxation. Commercial interests are the more ready to plead for comparatively useless dredgings, revetments, and canalizations, because, however small the benefits are, they reap these benefits, and because, however heavy the cost is, others mainly bear it. Any reform which goes to the root of the evil must espouse the principle of making those contribute most to the fixed charges and maintenance costs of navi-

[1] Statistics of Railways in the United States, Interstate Commerce Commission, 1910, p. 59.

gation improvements, who chiefly use those improvements and to whom their benefits chiefly go.

A further partial explanation is suggested by noting the distribution, throughout the country, of money appropriated for waterways. In the general River and Harbor Act of 1910, appropriations were received by 296 congressional districts in the United States, out of a total of 391,[1] in other words, by over three fourths of such districts. Apparently the appropriations were given to nearly every district in which there was a stream or harbor offering any excuse for expenditure. This River and Harbor Act illustrates what has been called the "pork barrel" system of waterway development.

The difficulty is one which seems to apply generally to the activities of a democratic government. A despotic or aristocratic government is based on the privilege of special persons or classes. It governs largely in the interest of legally privileged classes. It insures to those classes, political and economic privileges maintained at the expense of others. Such a government was that of France before the Revolution. Such is that of Russia to-day. In the case of a popular government and an intelligent people, privilege is probably less excessive, and its forms less obnoxious. But there may still be, especially if the government carries on industrial functions or interferes at all with the natural laws of trade, the privilege which comes from bargaining. One class wants a special kind of tariff law, adverse to the public interest. Another class desires legislation subversive of currency stability, also contrary to the general welfare. The representatives of each, in Congress, may support the desires of the other, in return for counter support.

[1] Fuller, "American Waterways and the Pork Barrel," *loc. cit.*

The evil shows itself most of all, perhaps, through the influence exerted by localities or by special interests in different localities. We have noted this particularly in the case of the protective tariff.[1] And just as, in the case of the tariff, congressional representatives from different states and districts desire, each, to get or keep a high tariff for the goods produced in his district, whatever the effect on the common weal, and sometimes inconsistently with their party platforms, so these representatives desire appropriations of money to improve waterways, each for his own district, even though the cost to the country as a whole far exceeds the benefit, and even though each district suffers more from its forced contributions to improvements in other districts, than it gains. There is, consequently, a process of "log-rolling," so-called, in which A votes for B's project in return for support of his own; and the ultimate result is an appropriation or set of appropriations having no consistency and involving general loss.

Each Congressman thus acting, feels that he is gaining favor with his constituents. The persons interested in local waterway constructions make representations to him regarding the importance of them. He feels that the people of his district are not concerned primarily in having him act the part of a wise and conscientious legislator, careful not to waste the nation's resources, but that they are concerned rather in having him "do something" for them. If he succeeds in getting what is desired, the newspapers of the district publish the fact that, through his influence, Congress has been led to appropriate a sum to improve navigation on the local stream or to deepen the local harbor. The fault is not alone

[1] Part II, Chapter VI, § 6.

that of the Congressman who, under such circumstances, does the thing which he believes his constituents desire, but is also largely the fault of those constituents themselves, whose selfish local interests overshadow in their minds the greater interests of the nation of which they are a part, and whose limited intelligence will not let them see that the system practiced is likely, in the end, to hurt more than to help even their own welfare.

It would seem, then, that a reform which would go to the root of the difficulty must not only insist upon the attempt to charge users rather than taxpayers, for facilities provided, but must also insist that the entire first cost and risk of constructing these facilities shall not fall upon the nation as a whole. If government expenditure rather than private investment is thought to be necessary to improve certain waterways, at least the government expenditure and risk should be partly borne by localities most directly concerned. If such localities will not support certain improvements, themselves, they should not expect the nation to do so. If the nation refuses to bear the burden alone, but insists, always, upon local aid, there will be far less pressure for Federal appropriations, and many wasteful expenditures will be avoided.[1]

§ 8

Subsidies to Railroad Building

The subsidizing of transportation by government has extended, in the United States (not to mention other countries), to railroads also. The railroads of the

[1] Cf. Preliminary Report of National Waterways Commission, pp. 19, 20 (Final Report, pp. 81, 82). See also Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part I, pp. 8, 59, for reference to European practice.

United States have, it is true, been built pretty largely with private capital, but they have also received aid from the national government, from many of the states, and even from county and city governments. The states and local governments, in some instances, invested in railroad securities, so enabling the roads to get capital which, perhaps, private persons would have been less ready to provide. But the Federal government, in addition to making loans, made very extensive land grants to companies constructing numerous desired lines,[1] chiefly in the less densely settled parts of the country, the West and Southwest. The grants made between 1850 and 1871 turned over to the railroad companies about 159 million acres of the public domain, an area exceeding five states the size of Pennsylvania.[2] So far as the land grant policy was based on military conditions, we cannot judge it on economic grounds alone. But so far as it can be regarded as a commercial policy, it can be judged in the light of commercial principles.

We shall not, of course, be able to decide, absolutely, whether the land grants and other government aid to the railroads actually decreased the total of national wealth. So to decide, we should have to know not only what has happened, but just what would have happened if business and transportation development had taken

[1] See, on this subject, Haney, *A Congressional History of Railways in the United States*, Vol. II. *The Railway in Congress:* 1850–1887, Madison, Wis. (Democrat Printing Co., State Printer), 1910, Chapters II, III. Also Sanborn, *Congressional Grants of Land in Aid of Railways*, Madison (Bulletin of the University of Wisconsin), 1899, Chapters VI, VII. A good brief account is in Johnson, *American Railway Transportation*, 2d revised edition, New York (Appleton), 1909, Chapter XXII.

[2] Not including land forfeited by failure to conform to conditions. The granting of the mere rights of way might be regarded as analogous to the granting of farms to actual settlers. But the granting of millions of acres additional cannot be so regarded.

its natural course. But we can lay down general principles of usual application, which, in the long run, are apt to be safest to follow.

To begin with, it must be admitted that there is such a thing as undesirable transportation. The labor and capital of a country should be applied in order of preference to different industries according to their relative importance, according to the relative need for them. In other words, the people should devote their efforts to the activities which pay best. It may be said that the people living in the Middle West and Far West, where railroad building was encouraged by government more than in the East, desired railroads as a means of reaching eastern markets. But the mere existence of railroads leading to markets does not in itself mean greater prosperity, since the benefits so received may be appreciably less than if the same capital were invested in some kind of productive enterprise for immediate local needs. Unless the trade made possible by a railway brings as much wealth and prosperity as could have been had by foregoing the trade and producing more locally, unless, that is, as much of desired wealth is produced by the railway as would be produced were the labor and capital applied instead to the farms and ranches, to building houses, making furniture, etc., the building of the road is not economy for the community. If a railroad when constructed will yield the people of a community a benefit equivalent to what the same investment would yield in another line, then those who receive this benefit can afford to pay, for the use of the railroad, a proper return on the capital invested. If they cannot afford to pay such a return, it must be because they are not receiving a correspondingly valuable service and, therefore, it

must be that the capital invested in the railroad is not producing the value which it might have produced if invested otherwise.

If the territory through which a railroad is desired is sparsely settled and would offer but small traffic in proportion to trackage, thus only very partially utilizing the plant of the railroad, then high charges would be required, in order that the railway plant might pay to the owners the average rate of profit on investment. But high charges may be as serious preventives of reaching markets as absence of railroads leading to markets. If, therefore, only small traffic can be hoped for, it may be truer economy for the territory concerned and the various communities in it, to be more self-sufficient, to depend more exclusively on natural waterways, or to carry goods by using horses and vans, than to build a railroad.

The people of a given section of the country may think that they gain nothing by having an incompletely utilized railroad, if they have to pay, in high freight and passenger rates, interest on its cost. They may not be prepared to patronize such a road, feeling that the service is not worth the charges. Yet if the road is paid for in part by government aid, even though they have to pay the taxes that make the aid possible, they may delude themselves into thinking that they are gainers by having the railroad. Nevertheless, the people are paying for the service rendered just as surely by this method as by the other, and if it is unprofitable for them to pay the amount in the one way, it is unprofitable to pay it in the other. The chief difference is that if government supports the enterprise without receiving any corresponding return, the cost of the service rendered is

paid for by the people without any regard to the proportionate benefits received.

If the assistance is by grants of land, the essential principle of the policy is the same. The public domain belongs to the whole people. It rests with them to give it to settlers, to keep it as forest reserve and for other purposes, or to secure money revenue by selling it. To contribute it to railroad companies is as much a cost as to contribute the equivalent in money.[1]

As a consequence of the land grant policy, capital was diverted to transportation purposes which might have yielded larger returns in agriculture or in manufactures. In so far as the policy had this effect, it lessened rather than increased national prosperity. Because of the land grant policy, also, population tended to be diverted towards the Middle and Far West, while there was still room in the East, South, and Central States. As a result of this diffusion of population, goods were probably carried by rail over longer distances than would have been necessary had population been for a time more concentrated and had its extension westward been more gradual. Had the westward movement, except that by water to the Pacific Coast, been slower, a shorter connection could have been kept by the near frontier with the more densely settled parts of the country, and the necessity of long hauls of meager traffic through undeveloped sections could have been, in part, avoided. It is doubtless true that some sections of the West are exceptionally rich and fertile, as some are exceptionally mountainous or arid. That the former should eventually hold a large population was both unavoidable and desirable. But that the movement westward should

[1] See, however, considerations later in this section, especially in footnote.

have been artificially hastened, at the cost of millions of acres of the public domain, at the cost of diverting labor from other industries into transportation, at the cost of unnecessary distances in transportation, and at the cost of building railroads in advance of traffic, ought not to be too readily taken for granted.

As some parts of the country presumably gained by the policy, so other parts probably lost wealth. Many of the eastern farmers, for instance, found themselves disadvantaged by competition with producers of the West. So far as western farmers, by virtue of natural advantages, were able to undersell the farmers of the East, the result was economical and beneficial. But so far as western farmers were, in effect, given bounties, by having transportation provided in part at national expense, the result may very well have been a national loss. If the prosperity of the government-aided western farmer was increased, that of the eastern farmer was decreased. If the value of western land was raised, that of eastern land was lowered.[1]

One type of municipal or local aid deserves particular mention. This is aid which is made conditional on the choice of a route through the town or city giving it. Such aid introduces an uneconomical basis (from the social point of view) of calculation into the choice of a route. The route selected is less apt to be the one which,

[1] To the argument that the government so raised the value of the remainder of its own land, it can be answered that it is not the business of a government to depreciate the land of citizens in order to raise the value of public land. If the principle that land rent is largely a social product and belongs mainly to the whole people were commonly accepted, depreciating some land to raise the value of other land would appear clearly to be uneconomical. It is probable, in the case under discussion, that enough railroads would soon have been built, and that the government, even in the narrow sense here used, lost more than it gained by making the grants.

all matters of traffic and expense considered, is most profitable, and, therefore, socially most desirable, but is apt, rather, to be a route favored by the largest promises of local aid.

§ 9

Summary

Let us now briefly restate the principles set forth in this chapter, regarding government interference with and encouragement of transportation. Navigation laws were first considered. These laws attempt to develop the national merchant marine by excluding foreign ships from certain trade. The United States excludes foreign vessels from the coasting trade. Considered from the purely economic viewpoint, these laws are analogous to protection, and for similar reasons they are economically undesirable.

Shipping subsidies are in the nature of bounties. In general it may be said that they are without economic justification. It may be defensible, however, or even desirable, to make definite payments to certain lines of ships, in order to have a claim to vessels as naval reserves, or for the government itself to own and operate such vessels. Subsidies may be indirect, as when certain privileges are given to a nation's own merchant vessels, at the taxpayers' expense, which are denied to the ships of other nations. The purpose of discriminating subsidies, direct or indirect, is not so much to increase commerce as to have it carried in vessels of the subsidy-paying country.

Facilities for transportation are frequently provided by government at the taxpayers' expense. These tend to stimulate commerce which is not worth the expense borne, and which could not pay this expense. Such a

policy is unfair to the general tax-paying public and violates the principle that those who gain by any facilities should be the ones to pay for them. Such provision of commercial facilities at public expense would have been the carrying out of the plan to allow United States coasting vessels to use the Panama Canal free. Such provision of facilities at public expense is the plan to have the Erie Canal forever free from tolls. Sections of the country, or of the state of New York, which have little or nothing to gain by the creation of these facilities, would have been, or will be, taxed that other sections might use them toll free. The Federal policy of harbor and river improvement is also a policy of subsidizing commerce, and is, therefore, popular with and favored by the interests subsidized. Like the protective tariff policy, the policy of subsidizing water transportation is partly the result of bargaining between representatives of different districts, each trying to get something at the general expense. The British system of a public harbor trust avoids private monopoly of facilities, but makes the traffic using the facilities provided, pay for them.

Land grants to railways, like other aids to water transportation, are indirect subsidies given to commerce, and, as such, are open to objections. The general rule which it is safest for government to follow, is that those who chiefly benefit by facilities provided for commerce should chiefly pay for them, rather than that these facilities should be paid for by the people in general, without regard to proportionate benefits received.

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